









ř		

# VOL. III.

		rå.

### SMITHSONIAN

# MISCELLANEOUS COLLECTIONS.

VOL. III.



44 EVERY MAN IS A VALUABLE MEMBER OF SOCIETY WHO BY HIS OBSERVATIONS, RESEARCHES,

AND EXPERIMENTS PROCURES KNOWLEDGE FOR MEN."—SMITHSON.

(10)00

WASHINGTON:
PUBLISHED BY THE SMITHSONIAN INSTITUTION.
1862.

PHILADELPHIA:

COLLINS, PRINTER.

### CONTENTS.

Advertisem	ent	•		•	•								PAGE VII
ARTICLE	I. (	Prep	pared	for th	ie Sn	aithsc	nian	Insti	or No tution With	by F	. Ost	EN-	
ARTICLE	н. (	Амв	RICA.	. Pr	epare	d for	the	Smit	рорте Isonia Pp. 7	an In			
ARTICLE I	II. (	Prej Le	pared Cont	for t	he Si D.	miths Pp.	oniar 302 a	n Inst .nd 4	or No litutio 7 wo –278,	on by od-cu	Jоны ts.	ī L. Рр.	
ARTICLE I	v. (	PERI	ODICA	al Wo	RKS	IN THE	LIBE	ARY	ries, of tu gn w	e Smi	CHSON		

#### ADVERTISEMENT.

The present series, entitled "Smithsonian Miscellaneous Collections," is intended to embrace all the publications issued directly by the Smithsonian Institution in octavo form; those in quarto constituting the "Smithsonian Contributions to Knowledge." The quarto series includes memoirs embracing the records of extended original investigations and researches resulting in what are believed to be new truths, and constituting positive additions to the sum of human knowledge. The octavo series is designed to contain reports on the present state of our knowledge of particular branches of science; instructions for collecting and digesting facts and materials for research; lists and synopses of species of the organic and inorganic world; museum catalogues; reports of explorations; aids to bibliographical investigations, etc., generally prepared at the express request of the Institution, and at its expense.

The position of a work in one or the other of the two series will sometimes depend upon whether the required illustrations can be presented more conveniently in the quarto or the octavo form.

In both the Smithsonian Contributions to Knowledge, and the present series, each article is separately paged and indexed, and the actual date of its publication is that given on its special titlepage, and not that of the volume in which it is placed. In many cases, works have been published, and largely distributed, years before their combination into volumes.

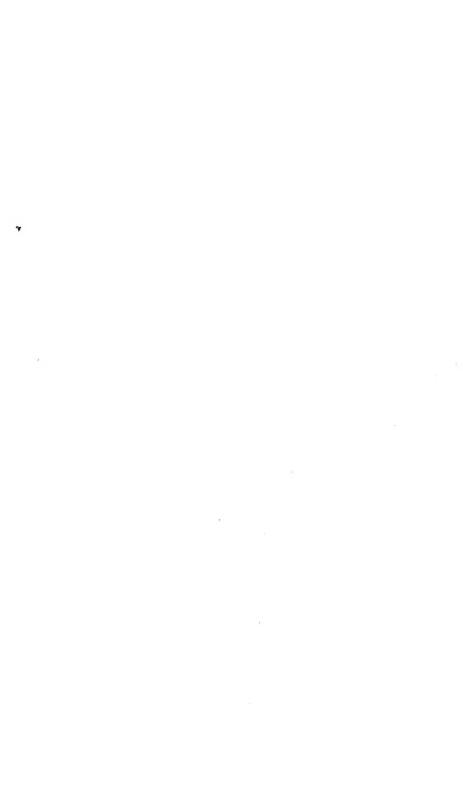
While due care is taken on the part of the Smithsonian Institution to insure a proper standard of excellence in its publications, it will be readily understood that it cannot hold itself responsible for the facts and conclusions of the authors, as it is impossible in most cases to verify their statements.

JOSEPH HENRY,

Secretary S. I.







### CATALOGUE

oF

## DIPTERA.



#### SMITHSONIAN MISCELLANEOUS COLLECTIONS.

### CATALOGUE

OF THE DESCRIBED

## DIPTERA

OF

### NORTH AMERICA.

PREPARED FOR THE SMITHSONIAN INSTITUTION

BY

#### R. OSTEN SACKEN.



WASHINGTON: SMITHSONIAN INSTITUTION. JANUARY, 1858.

# ACCEPTED FOR PUBLICATION MARCH 4, 1857.

JOSEPH HENRY,
Secretary S. J.

#### PREFACE.

The plan of the present publication is the same as that of Melsheimer's Catalogue of Coleoptera of the United States, revised by Prof. Haldeman and Dr. Leconte, adopted by the Smithsonian Institution, and published in 1853.

It is intended to be merely a list of the species already described, and not a synonymical catalogue; that is to say, that among the species enumerated, many may be synonyms, without being yet known as such. In the present state of the knowledge of American diptera, the publication of a complete synonymical catalogue is impossible; but a list like the following, is an indispensable preparatory work for the further study of that branch of Entomology.

This catalogue differs from Melsheimer's, in comprising not only the species inhabiting the United States, but those of North America in general, including Mexico, Central America, and the West Indies. Many species described originally as belonging to the last-named countries, may subsequently be found in the southern parts of the United States. This extension of the plan of the catalogue may therefore prove useful, in sometimes preventing a species already described from being considered as new, when only found for the first time within the United States.

A further addition, by which this catalogue differs from Melsheimer's, will be found in the mention of the localities, where each species has been discovered. This addition was the more necessary, as the geographical limits of the catalogue had been extended.

I have omitted all species marked simply "America," or those of which the country was entirely unknown.

viii Preface.

In a list like this, completeness is the principal merit; the systematical arrangement is of but secondary importance. I have retained generally the generic groups adopted by Meigen and Wiedemann, avoiding the subdivisions introduced by modern authors. In cases only, when a new genus had been especially adopted for one or several new species, and had not been detached from an older genus, I have retained it, supposing that its characters were of sufficient importance to justify its formation. In the distribution of the Asilidæ, Acroceridæ, Stratiomydæ and Tubanidæ alone, I follow closely Walker's Supplement to the List of Diptera of the British Museum, completing only its omissions.

For the species within each genus, I have adopted the alphabetical order, so as to facilitate reference. Analytical tables for determining the specific names, cannot be constructed from descriptions only, without comparing the specimens themselves. Attempts of this kind generally prove failures, and serve only to encourage the fabrication of new species, by giving a false security to the describer.

In quoting Macquart's Diptères Exotiques, I have always mentioned the volume and the page of the Mémoires de Lille, in which this work has been published, as well as the volume and the page of the separate edition. The numbers of the plates and figures are the same in both editions.

Dr. Harris's Catalogue of Insects of Massachusetts, contains many names of species which have never been described, or have been so since, under other names, but I have considered it useful to mention his names in my Catalogue. These species belong, in part, to Mr. Harris's collection, which is still extant, and some have been described lately by Mr. Walker, who retained Mr. Harris's specific names. Others also may be found in collections in this country, or abroad, labelled with Mr. Harris's names: the wide-spread connections of this distinguished entomologist, making this supposition very probable. I have thought these reasons a sufficient excuse for a deviation from the original plan of a catalogue which was intended to comprise only described species.

Although Walker's List of the Diptera of the British Museum gives the description of the new species only, I have quoted all the North American species mentioned in it, for the reason that as this collection embraces probably the largest number of species of

PREFACE. ix

North American diptera now extant, it is always interesting, in a list, like mine, to find its catalogue.

In the present catalogue, I occasionally refer to Say's manuscript notes. These notes, in Say's own handwriting, I found in a copy of Wiedemann's aussereuropäische Zweiflügler, which belonged to Say, and is still preserved in the Library of the Academy of Natural Sciences in Philadelphia.

The compilation of this catalogue has been suggested and encouraged by the Smithsonian Institution; and I earnestly hope such encouragement, seconded by the assistance of all friends of natural history, and collectors in all parts of the United States, may further the progress of this branch of entomology as rapidly as the study of the Coleoptera of this country was furthered under similar auspices!

On the opposite page will be found a few brief directions for catching and preserving specimens of diptera.

R. OSTEN SACKEN.

WASHINGTON, D. C., March, 1857.

### DIRECTIONS FOR COLLECTING AND PRESERVING DIPTERA.

For catching dipterous insects, use nets, like those employed in catching butterflies.

The best way of preserving diptera after having caught them, is to pin them immediately. A slight compression of the chest between the fingers is sufficient to kill without crushing them. I prefer rather short pins, but their thickness ought to be in proportion to the size of the insect. When pinned, the insect must be a little above the middle of the pin.

Diptera do not keep well in spirits. This mode of preserving should, therefore, be recurred to in eases only when no other can be conveniently used.

#### AUTHORITIES.

- Amyor.—In the Annales de la Société Entomologique de France, 1855, Bulletin, p. 104; remarks upon *Cecidomyia tritici*, Kirby, and the identity of the European and the American insect known under this name.
- Bosc.—Ceroplatus carbonarius, from Carolina, described in the Nouveau Dictionnaire d'Histoire Naturelle, in 8vo. Paris, chez Déterville et Roret. (First edition, 1802–1804, in 24 vols. Second, 1816–19, in 36 vols.)
- СLARK, Braey.—An Essay on the Bots of Horses and other Animals. London, 4to. 1815. With two plates.
  - Cuterebra horripilum and Oestrus phobifer are new.
  - "Observations on the genus Oestrus (in the Transactions of the Linnean Society, vol. iii. 1797). Contains the description of O. cuniculi, Clark, from Georgia.
- COQUEBERT, A. J.—Illustratio ieonographica insectorum que in museis parisinis observavit et in lucem edidit F. C. Fabricius, præmissis ejusdem descriptionibus. Paris, 1799–1804. In fol. min. With 30 plates. Several American species are figured in this work, although no new ones described.
- Curtis, J.—Description of the Insects brought home by Commander J. Clark Ross. (In his Voyage to the Arctic Regions, 1835.)
  - Chironomus borealis, Tipula arctica, Helophilus bilineatus, Anthomyia hirta, Anthomyia dubia, and Scatophaga apicalis, are new.
- Degeer, Baron Charles.—Mémoires pour servir à l'Histoire des Insectes. Stockholm, 1752-78. 7 vols. Several American species are described in the 6th vol.
- Desvoid, Robineau.—Essai sur la tribu des Culicides. In the Mémoires de la Société d'Hist. Naturelle de Paris, vol. iii. p. 412. 1827. Five new species from N. America and the West Indies.
  - "Essai sur les Myodaires. In the Mémoires des savants étrangers de l'Académie des Sciences de Paris. Vol. ii. (1830). This Essai is a 4to. volume of more than 800 pages, containing a new systematical

arrangement of the whole group, and numerous descriptions (among which some eighty new North American species); but, according to the author's ordinary method, no notice whatever has been taken of the previous publications upon the same subject.

- Druky, Drew.—Illustrations of Natural History, wherein are exhibited upwards of two hundred and forty figures of exotic insects. London, 1770-82. 3 vols. (A new edition of this work has been published in 1837, by Westwood, under the title of Illustrations of Foreign Entomology.) Eight N. American and West Indian species are figured.
- DUFOUR, Léon.—Révision et Monographie du Genre Ceroplatus. In the Annales des Sciences Naturelles, 2e serie, vol. xi. p. 193 (1839), with figures. Contains the description of Ceroplatus carbonarius Bosc, from Carolina. Conf. Bosc.
- DUMERIL, A. M. C.—Considérations Générales sur la classe des Insectes, etc. Strasbourg et Paris, 1823. With plates. No new species.
- ERICHSON, F. W.—Die Henopier. Eine Familie aus der Ordnung der Diptern. (In Erichson's Entomographien, Berlin, 1840.) Ocnaa micans, new species from Mexico.
- Eschscholz, Dr. J. F.—Entomographien, in 8vo. Berlin, 1823.

Empis laniventris, and Musca obscana, new species from Unalaschka (Russian America).

- Fabricius, J. C.—Systema Entomologiæ. Flensburgi, 1775.
  - " Mantissa Insectorum. 2 vols. Hafniæ, 1787.
  - " Entomologia Systematica. 4 vols. Hafniæ, 1792-94.
  - " Systema Antliatorum. Brunsvigæ, 1805.
- Fabricus, O.—Fauna Grænlandiæ. Hafniæ et Lipsiæ, 1780. 8vo. Eighteen diptera are described.
- FITCH, Dr. Asa.—An Essay upon the Wheat-fly and some species allied to it. Albany, 1845.

This is the first edition, which was published in the American Quarterly Journal of Agriculture and Science, vol. ii. No. 2. It contains the descriptions of Cecidomyia tritici, Kirby; Cec. caliptera, n. sp.; Cec. thoracica, n. sp.; Cec. tergata, n. sp. A second edition appeared in 1846, in the Transactions of the N. Y. State Agricultural Society, vol. v. A new species, Cec. borealis, is separated in this edition from the former, C. caliptera, and full descriptions with figures of both are given.

- "The Hessian Fly. Albany, 1846. (2d edit. 1847.) With a plate. Published originally in the American Journal of Agriculture and Science, vols. iv., v. (1846). Reprinted afterwards in the Transactions of the N. Y. State Agricultural Society, vol. vi. (1847).
- "Cecidomyia salicis, n. sp., described in the American Quarterly Journal of Agriculture and Science, vol. i. p. 263.

- FITCH, Dr. Asa.—Winter Insects of Eastern New York. (In the American Journal of Agric. and Sci., vol. v. pp. 274—284.)
  - N. sp. Culex hiemalis, Chironomus nivoriundus, and Trichocera brumalis.
  - "Survey of Washington County, New York. (In the 9th vol. of the Transactions of the N. Y. State Agricultural Society.)
    - Several species occurring in that locality, are mentioned in a popular way.
  - "First and Second Report on the Noxious, Beneficial, and other Insects of the State of New York. Made to the State Agricultural Society pursuant to an appropriation for this purpose from the Legislature of the State. Albany, 1856. (With four plates.)
    - Before the publication of the Second Report, the first had been distributed under the title of First Report, etc. 1855. This work contains 21 new American diptera.
- FÖRSTER, J. R.—Novæ Species Insectorum. Centuria I. London, 1771. Tabanus americanus, n. sp. (T. ruficornis, Fab., according to Wiedemann).
- GRAY, G. R.—In E. Griffith's Animal Kingdom. (London, 1824-33. 16 vols. With engravings.)
  - Several N. American species are figured in the 15th vol. The descriptions by Gray are very incomplete.
- GREEN, Dr.—Natural History of the Horse Bee. (In Adam's Medical and Agricultural Register, vol. i. p. 53; and in New England Farmer, vol. iv. p. 345.)

Gastrus veterinus, Green (Fab?).

Guérin-Méneville, F. E.—Note sur deux Insectes Parasites de la cochenille qui font un grand tort à cette culture en Amérique. (Read in the Academy of Sciences in Paris on the 13th of Nov. 1848. Conf. Guérin's Revue Zoologique, 1848, p. 350.)

Baccha cochenillivora, n. sp. from Guatemala.

- Guérin et Percheron.—Genera des Insectes. Paris, 1831-35. (With plates.)

  Culex mosquito, R. Desv., from Cuba; and Tabanus flavus, Macq.,
  from the U. States, are figured.
- HALDEMAN, Prof. S. S.—Description of several new and interesting Animals. (In the American Journal of Agriculture and Science, vol. vi. p. 193. With figures. 1847.)

Cecidomyia robinia, n. sp.

HARRIS, Dr. Thaddeus William.—A Treatise on some of the Insects of New England, which are injurious to Vegetation. Second edition. Boston, 1852.

The first edition of this work was published in 1841, under the title of  $\Lambda$  Report on the Insects of Massachusetts, injurious to Vegetation. The second edition contains many additions.

IIARRIS, Dr. Thaddeus William.—Catalogue of the Insects of Massachusetts. (In Prof. Hitchcock's Report on the Geology, Botany, and Zoology of Massachusetts.)

Prof. Hitchcock's Report had two editions; in the first (1833), Dr. Harris mentioned only the generic names of the insects, adding the number of species belonging to each genus. In the second edition (1835), the specific names are also given; many of them are mere collection names, having never been published.

- HAUSMANN.—Entomologische Bemerkungen. Quoted by Wiedemann (Auss. Zw. ii. 106, 4) under the head of Milcsia ornata (Syrphus trifasciatus, Hausm.). I never saw this work.
- ILLIGER.—Neue Insecten. (In the Magazin für Insectenkunde, vol. i. p. 206.)

  Midas fulvifrons, n. sp. from Georgia.
- Kirby, Will.—Fauna Boreali-Americana; or the Zoology of the northern parts of British North America, by J. Richardson, assisted by W. Swainson and Will. Kirby. London, 1829-37. 4 vols.

The fourth volume, containing the entomological part, is by W. Kirby; nine new species are described. (Culex punctor, Tipula pratorum, Aspistes analis, Empis luctuosa, geniculata, Tabanus affinis, zonata, Musca cadaverum, mortisequa.)

"A Supplement to the Appendix of Capt. Parry's Voyage in 1819, 1820, containing Mammalia, Birds, Fish, and Marine Invertebrate Animals, by Edw. Sabine; Land Invertebrate Animals, by W. Kirby, etc., in 4to. London, 1824.

Ctenophora Parrii, Chironomus polaris, n. sp.

- LAMARCK, J. B.—Histoire Naturelle des Animaux sans Vertèbres, etc. 1ère édit. 7 vols. Paris, 1815-22. 2e édit. 11 vols. Ibid. 1835-45.

  The insects form the third volume of the first, and the fourth of the second edition. I have quoted the first edition. Some typical forms only of American insects are mentioned in this work, and no new species described.
- Latreille, P. A.—Histoire Naturelle, générale et particulière des Crustacés et des Insectes. 14 vols. Paris, 1792-1805. (This work forms a part of Sonnini's Suites à Buffon.)
  - Genera Crustaceorum et Insectorum, etc. 4 vols. Paris, 1806, 7 et 9.
  - "The articles on Entomology in the Nouveau Dictionnaire d'Histoire Naturelle, etc. Comp. above Bosc.

All these works contain the mention or description of some typical forms from N. America, but no new species.

- Leach, W. E.—On the genera and species of Eproboscideous Insects. (In the Wernerian Transactions, vol. ii. Edinburgh, 1817.)
  - Olfersia Americana and Ornithomyia erythrocephala, n. sp. fi.5m N. America.
- Linné, Carol. a.—Systema Naturæ, etc. Editio XII. Second vol. 1767.
  - " Amenitates Academica s. Dissertationes variae Phys. Med. Bota-

nice, antehac seorsim edite, nunc collectæ et auctæ. 7 vols. Cum tab. æn. 1749-1769.

Loew, Dr. H.—Beschreibung einiger neuen *Tipularia terricola*. (In the 5th vol. of the Linnæa Entomologica. Stettin, 1851.)

General observations on the American genera: Ptilogyna, Aporosa and Toxorhina, and the descriptions of three new species Ap. rufescens, virescens, and Tox. fragilis, from the West Indies.

"Bemerkungen üb. die Gattung Beris. (In the 6th vol. of the Entomologische Zeitung. Stettin, 1846.)

Several American species mentioned; no new ones described.

"Helophilus. (In the 6th vol. of the Entomologische Zeitung. Stettin, 1846.)

Monograph of the genus, mentioning some American species; H. glacialis, n. sp. from Labrador.

- Chauna, genus novum. (l. c. 7th vol. p. 370. Stettin, 1847.)

  Chauna variabilis, n. sp. from Cuba.
- "Uber Tetanocera stictica, Fab., und ihre nächsten Verwandten, etc. (l. c. 7th vol. p. 114. Stettin, 1847.)
  Tet. flavescens, n. sp. from Carolina.
- "Uber Tetanocera ferruginea, Meig. und die ihr verwandten Arten. (l. c. 7th vol. p. 194.)

Tet. plumosa, n. sp. from Sitkha.

" Bemerkungen über die Familie der Asiliden, etc. in 4to. Berlin, 1850.

Dasypogon anthracinus, n. sp. from Mexico.

" Ceria. (In the Neue Beiträge zur Kenntniss der Dipteren, by Dr. Loew. Erster Beitrag. Berlin, 1853.)

Monograph of the genus; Ceria pictula from the U. St.; C. arietis and siquifera, from Mexico, are new.

' Conops. (l. c.)

Monographical Essai. Conops genualis, bulbirostris, and castanoptera, n. sp. from the U. States.

" Neue Diptern (l. c. Zweiter Beitrag. Berlin, 1854).

Among these diptera is *Pyrgota millepunctata*, n. sp. from North America.

" Bombylius. (l. c. Dritter Beitrag. Berlin, 1855.)

Monograph of the genus, containing important synonymical remarks upon several American species; no new ones described.

"Dipterologische Notizen. Neue Americanische Dolichopoden. (In the Wiener Entomologische Monatsschrift, vol. i. p. 37. Vienna, 1857.)

Lyroneurus cærulescens from Mexico, and Plagioneurus univittatus from Cuba, new genera and species.

MACQUART, J.—Ilistoire Naturelle des Diptères. 2 vols. Paris, 1834-35. (Forms a part of the Suites à Buffon, published by Roret.)

- MACQUART, J.—Diptères Exotiques nouveaux ou peu Connus. 2 vols. en 5 parties, et 5 supplements. Paris, 1838-1855. With numerous plates. (Published originally in the Mémoires de la Société des Sciences et des Arts de Lille, 1838-1855.)
  - Both works, especially the second, contain numerous new American species.
- Meigen, F. W.—Systematische Beschreibung der bekannten europäischen zweiflügeligen Insecten. 7 vols. Aachen and Hamm, 1818–1838.
  - Although this work contains only European species, many of them are common to both continents.
- Morris, Miss.—In the Proceedings of the Academy of Natural Sciences of Philadelphia, vol. iv. p. 194 (1849), some remarks have been published by her on the habits of *Cecidomyia culmicola*, n. sp.
- Newmann, Edw.—Entomological Notes. (In the Entomological Magazine, V, p. 373.)
  - Dimeraspis podagra, n. sp.
- OLIVIER, G. A.—Several entomological articles in the Encyclopédie Méthodique are by him, and contain descriptions of American species.
- Palisot de Beauvois, A. M. F. F.—Insectes recueillis en Afrique et en Amérique, etc. in fol. Paris, 1805-21. With plates.
  - Several *Tabani*, one *Chrysops*, and one *Syrphideous* insect from N. America, are described and figured.
- Pallas.—Reisen durch verschiedene Provinzen des Russischen Reichs. 1st vol. St. Petersburg, 1771.
  - On page 475 a Culex caspius is described, which Curtis (Ins. of Capt. Ross's voy.) identifies with an American species.
- RONDANI, Camille.—Tabanus cheliopterus, n. sp. from Carolina, described by him in the Annali delle Scienze Naturale di Bologna, 1850.
- St. Fargeau and A. Serville, authors of several articles in the Encyclopédie Méthodique, in which American diptera are mentioned. (No new species.)
- SAY, Th.—Description of Dipterous Insects of the United States. (In the Journal of the Academy of Natural Sciences in Philadelphia, vol. iii. p. 9-54 and 73-104. 1823.)
  - "Description of North American Dipterous Insects (l. c. vol. vi. p. 149-178 and 183-188. 1829-30.
  - "Keating's Narrative of an Expedition to the Source of St. Peter's River, under the command of S. H. Long. 2 vols. Philadelphia, 1824. (Insects described by Say in the Appendix to the 2d vol.; diptera from p. 357 to p. 378.)
  - " New Species of N. American Insects, found by Joseph Barabino in Louisiana. Indiana, 1832.
    - Sciara dimidiata, Dilophus stygius, n. sp.
  - 4 American Entomology. 3 vols. With plates. Philadelphia, 1824, 25, 28.

Nineteen diptera are described and figured in this work, seven of which for the first time.

- SAY, Th.—Diopsis brevicornis, n. sp. (In the Journal of the Academy of Natural Sciences of Philadelphia, vol. i. p. 23.)
  - "Some account of the insect known by the name of Hessian Fly, etc. (In the Journ. A. N. Sci., Phil., vol. i. 1817.)

Cecidomyia destructor, Say, has been described for the first time in this paper.

STEGER, R. C.—Grænland's Antliater. (In Kröyer's Nat. Tidsskrift, new series, vol. i. p. 346. 1845.)

Fifty-five diptera are mentioned, eight of which are new.

- THUNBERG.—In Act. Soc. Gothoburg. 1819. Pars III, 7, Tab. 7, fig. 2. (Quoted so by Wiedemann, Auss. Zw. I, 110, 4, who reprints Thunberg's description of *Pantophthalmus tabaninus*, from the W. Indies.)
- WALKER, F.—List of the Specimens of Dipterous Insects in the Collection of the British Museum. Four Parts and three Supplements. London, 1848-55.

Numerous new species from N. America. The supplements contain a symposis of the described species of *Tabanidæ*, *Asilidæ*, *Acrocerideæ*, and *Stratiomydæ*, from all parts of the world.

"Insecta Saundersiana, or characters of undescribed Insects in the collection of W. W. Saunders, Esq. Diptera. Five parts, with plates. London, 1850-56.

Numerous new species from N. America.

Westwood, J. O.—Insectorum novorum exoticorum ex ordine dipterorum descriptiones. (In the London and Edinburgh Philosophical Magazine, 1835.)

Bittacomorpha, nov. gen. Lepidophora ageriiformis, Gray.

"Insectorum nonullorum novorum (ex ordine dipterorum) descriptiones. (In the Annales de la Société Entomologique de France, 1835.)

Limnobiorhynchus canadensis, nov. gen. et. sp.

" Description of some new exotic Acroceride. (In the Transactions of the Entomological Society, vol. v. p. 91.)

Six new species from N. America.

" Synopsis of the dipterous family *Midasiidu*, with descriptions of numerous species. (In Westwood's Arcana Entomologica, vol. i. Plates XIII and XIV.)

Five new species from N. America.

" Generis dipterorum monographia Systropi. (In Guérin's Magazin de Zoologie, 1842.)

Systropus fanoides, n. sp. from Mexico.

" Diptera nonulla exotica descripta. (In the Transactions of the Entomological Society, vol. v. p. 231. 1850.)

Ceria daphnaus, Walk.; from Jamaica, described and figured.

- Wiedemann, C. R. W.—Aussereuropäische Zweiflügelige Insecten. 2 vols. Hamm, 1828-30. With plates.
  - " Diptera exotica. Kiliæ, 1821.
  - " Analecta entomologica. Kiliæ, 1824.
  - "Achias, dipterorum genus a Fabricio conditum. Kiliæ, 1830.

    Sphyracephala (Achias) brevicornis, Say; described and figured.
  - "Monographia generis Mydarum. (In the Nova acta Academiæ Naturæ Curiosorum, vol. xv. Bonn, 1831. 4to. With three plates.)
    Four new species from N. America.
- ZETTERSTEDT, J. W.—Insecta lapponica, descripta. 1 vol. in 4to. Lipsiæ, 1838-40.
  - " Diptera Scandinaviæ disposita et descripta. 12 vols. Lundæ, 1842– 1855.
    - Both of these works contain many diptera common to Lapland and the northern parts of the American continent.



XX ERRATA.

#### ERRATA.

Page 6, line 14, for Ramphidia read Rhamphidia.

- "11, "4, remove Gen. **Heretomyia** to page 4, after **Tany- pus.** Strike out the N. B.
- " 15, " 14, for 245,1 read 245,8.
- " 30, " 24, for dersata read dorsata.
- " 30, " 36, after fulvithorax add Fabr.
- " 31, " 41, before Wied. Dipt. Exot. add (L. fulvithorax Fab. in corrigendis).
- " 43 " 4, from below, for 390,1 read 390,2.
- " 45, " 1, for Fam. XIII. read Fam. XII.
- "46, between the 6th and 7th lines, put in Fam. XIII. TACHYDROMIÆ.
- " 46, line 28, after the quotation from Macquart, add Walker, List. etc. III, 539 (Microdon agapenor), and ibid. IV, 1157 (Mesophila, n. gen.).
- "47, "2, after Agapenor Walk. add vid. Ceratophyia fuscipennis
  Macq., and strike out the rest.
- " 48, " 17, for Mexico read Guatemala.
- " 48, " 32, for II, 74 read II, 2, 74.
- " 51, " 10, for cingulatus read cingulatulus.
- " 52, " 22, for tab. viii read tab. xi.
- " 52, last line, for fig. 1 read fig. 10.
- " 56, line 22, for fig. 12 read fig. 2.
- " 60, " 32, after Macq. Dipt. Exot. put II instead of I
- " 64, " 24, after 796 add (Illigeria.)
- " 64, " 28, after 723 add (Fabricia.)
- " 64, last line, after 726 add (Echinomyia).
- " 64, line 5 and 10, for Furinia read Jurinia.
- " 70, " 17, for Estneria read Estheria.
- " 70, " 21, for Walk. read Macq.
- "71, "2, for Jamaica read Brazil (Macq.); Jamaica (Walk.).
- " 71, " 2, for 151 read 153.
- "72, "8, after Myodaires add p. 453, 2 (Lucilia).
- " 74, " 10, after Myod. add p. 585 (Egle).
- " 78, " 6, from below, for 1847 read 1850.

# CATALOGUE

OF

# NORTH AMERICAN DIPTERA.

#### Fam. I. TIPULARLE.

### Megarhina Desvoidy.

ferox Wied.—Brasilia (Wied.); Georgia (Walk.).—Wied. Auss. Zw. I, 1, 1 (Culex). Macq. Hist. Nat. Dipt. I, 33, 3. Dipt. Exot. Suppl. 1, 7, 2. Mém. de Lille, 1844, p. 135; tab. i, fig. 1. Walker, List, etc. I, 1.

### Culex Linn.

Boscii R. D.—Carolina.—Rob. Desvoidy, Culicides, etc. (Psorophora).
caspius Pall.—Amer. Boreal. (Curtis).—Pallas, Reisen, etc., I, 475 (from the south of Russia); Curtis, Ins. of Capt. Ross' Voy. p. lxxvi.
ciliatus Fab.—Georgia (Wied.); Honduras (Walk.); Carolina (Fab.);
Massachusetts (Harris Cat.).—Fab. Ent. Syst. IV, 401, 6. Syst. Antl. 35, 10. Coqueb. Ill. Icon. Ins. tab. xxvii, fig. 7. Wied. Dipt.

Antl. 35, 10. Coqueb. III. Icon. Ins. tab. xxvii, fig. 7. Wied. Dipt. Exot. I, 7, 4 (molestus Wied.). Auss. Zweifl. I, 3, 5. Macq. Hist. Nat. Dipt. I, 36, 15. Dipt. Exot. 4th Suppl. p. 11, tab. i, fig. 1.

Mém. de Lille, 1849, p. 315. Walker, List, etc. I, 2.

colon Harris.—Cat. Ins. Mass.

consobrinus R. D.—Penna.—Rob. Desvoidy. Culicides, p. 408, 27. conterrens Walk.—U. States.—Walk. Dipt. Saund. V. 427.

damnosus, Say. --- vid. taniorhynchus.

excitans Walk .- Georgia .- Walker, List, etc. I. 4.

excrucians Walk. --- Nova Scotia. --- Walk. Dipt. Saund. V, 429.

fasciatus Fab. — Jamaica. — Fab. Syst. Antl. 36, 13. Wied. Auss. Zw. 1, 8, 13. Walker, List, etc. I. 3.

frater R. D.—Ins. Americ.—Rob. Desvoidy, Culicides, etc. (he quotes C. fasciatus Wied. as synonym, but distinguishes it from C. fasciatus Fab.)

hiemalis Fitch.—New York.—Fitch, Winter Insects, etc.

impatiens Walk. -- Hudson's Bay. -- Walker, List, etc. I. 5.

```
impiger Walk. — Hudson's Bay. — Walk. l. c. I, 6.
```

implacabilis Walk. --- Hudson's Bay. --- Walk. 1. c. I, 7.

molestus Wied. vid. ciliatus.

mosquito R. D.—Cuba.—R. Desv., Culicides, etc. p. 390. Guérin et Percheron, Genera, etc. (figured carefully) Dipt. tab. ii, fig. 1. Macq. Hist. Nat. Dipt. I, 35, S.

musicus Say. ——Indiana. ——Say, Journ. Acad. Phil. VI, 149. nigripes Zett. ——Grænland. ——Zetterstedt, Insecta Lapponica. Stæger, Grænland's antliater.

perturbans Walk. -- U. States. -- Walk. Dipt. Saund. V, 428.

pipiens Linn. — Europe (aut.); Grænland (Fabr.). — Linné, etc. O. Fabricius, Fauna Greenl. p. 209, 171. Fabricius observes, in a note, that Cul. caspius Pallas, agrees better with his specimens.

posticatus Wied. — Mexico. — Wied. Dipt. Exot. I, 43, 2. Auss. Zw. I, 9, 15.

provocans Walk. --- Nova Scotia. --- Walk. l. e. I, 7.

punctor Kirby. — Hudson's Bay (Walk.). — Kirby, Fauna Bor. Amer. Insects, 309, 1. Walk. l. c. I, 6.

pungens Wied. --- New Orleans (Wied.); Jamaica (Walk.); Massachusetts (? Harris, Cat.). Wied. Auss. Zweifl. I, 9, 16. Walker, List,

rubidus R. Desv.—Carolina.—R. Desv. Culicides, etc.

sollicitans Walk.—U. States.—Walk. Dipt. Saund. V, 427. stimulans Walk.—Nova Scotia.—Walker, List, etc. I, 4. taeniatus Wied.—Savannah (Wied.); Honduras (Walk.).—Wied. Auss. Zweifl. I, 10, 18. Walker, List, etc. I. 5.

taeniorhynchus Wied. — Penna. (Say); Mass. (Harris, Cat.); Florida; Honduras (Walk.); Mexico (Wied.). - Wied. Dipt. Exot. I, 43, 1. Auss. Zweifl. I, 8, 13. Say, Journ. Acad. Phil. III, 11, 3. (Cul. damnosus.) Walker, l. c. I, 3.

territans Walk.—U. States.—Walk. Dipt. Saund. V, 428. triseriatus Say.—Penna.—Say, Journ. Acad. Phil. III, 12, 4. Wied. Auss. Zw. I, 11, 19.

# Anopheles Meig.

albimanus Wied.——St. Domingo.——Wied. Auss. Zw. I, 13, 3.

crucians Wied. -- United States (Say). -- Wied. Auss. Zweifl. I, 12, 1. Say, Journ. Acad. Phil. III, 9, 1. (Culex punctipennis.)

ferruginosus Wied. — Western States (Say); New Orleans (Wied.). — Wied. Auss. Zw. I, 12, 2. Say, Journ. Acad. Phil. III, 10, 2. (Culex quinquefasciatus.)

punctipennis Say .- Vid. crucians.

quadrimaculatus Say (guttulatus Harris Cat. var.?) - N. W. Territory. ——Say, Long's Exp. App. p. 356. Wied. Auss. Zweifl. I, 13, 4. quinquefasciatus Say. Vid. ferruginosus.

# Corethra Latr.

punctipennis Say.——Pennsylvania.——Say, Journ. Acad. Phil. III, 16. Wied. Auss. Zweifl. I, 14, 1.

### Diamesa Meig.

Waltlii Meig. - Europe; Grænland. - Meig, etc. Stæger, Grænl. Autliater.

#### Chironomus Fabr.

```
albistria Walk. — Hudson's Bay. — Walker, List, etc. I, 17.
albitarsis Harris. -- Cat. Ins. Mass.
```

anticus Walk .-- Georgia .-- Walker, List, etc. I, 21.

aterrimus Meig. ——Europe (Meig.); Grænland (Stæger). ——Meigen, etc. Stæger, Grænl. Antliater.

attenuatus Walk.——Huds. Bay.——Walker, List, etc. I, 20.

basalis Stæg. - Grænland. - Stæger, Grænl. Antliater.

bimacula Walk.——Huds. Bay.——Walker, List, etc. I, 15. borealis Curtis.——Amer. Boreal.——Curtis. Ins. of Ross's Voy. p. lxxvii. brunneus Walk.——Huds. Bay.——Walker, List, etc. I, 21.

byssinus Meig. ——Europe (Meig.); Grænland (Stæger). ——Meigen, etc. Stæger, Grænland's Antliater.

claracollis Harris. -- Cat. Ins. Mass.

confinis Walk. --- Huds. Bay. --- Walker, List, etc. I, 15.

crassicollis Walk.——Huds. Bay.——Walk. l. c. I, 18. cristatus Fab.——N. Amer. (Wied.); New York (Fab.)——Fabr. Syst. Antl. 39, 4. Wied. Auss. Zweifl. I, 14, 1. Macq. Hist. Nat. Dipt.

I, 50, 10. Walker, List, etc. I, 11. devinctus Say.—Indiana.—Say, Journ. Acad. Phil. VI, 150.

festivus Say. ——Illinois (Say); Huds. Bay (Walk.). ——Say, Journ. Acad. Phil. III, 13, 2. Wied. Anal. Entom. p. 10. Auss. Zw. I, 16, 5. Walker, List, etc. I, 19.

fimbriatus Walk. --- Huds. Bay. --- Walk. l. e. p. 20.

flavicingula Walk. -- Huds. Bay. -- Walk. l. e. p. 20.

frigidus Zett. Grænland. Zetterstedt. Insecta Lapponica. Stæger. Grænl. Antliater.

geminatus Say.——Penna.——Say, J. Acad. Phil. III, 14, 4. glaucurus Wied.——U. States (Say).——Wied. Auss. Zweifl. I, 15, 3. Say, Journ. Acad. Phil. III, 15, 6. (Ch. stigmaterus.)

hyperboreus Stæger. — Grænland. — Stæger, Grænland's Antliater.

jucundus Walk.——Georgia.——Walker, List, etc. I, 16. lasiomerus Walk.——Huds. Bay.——Walk. l. c. I, 19.

lasiopus Walk. — Huds. Bay. — Walk. 1. c. I, 19.

lateralis Harris.——Cat. Ins. Mass.

lineatus Say. Vid. Lineola (Wied.)

lineola Wied.—Penna.—Wied. I, 17, 6. Say, J. Acad. Phil. III, 14, 5. (C. lineatus.)

lobifer Say. ——Penna. —Say, J. Acad. Phil. III, 12, 1. (C. lobiferus). Wied, Auss. Zweifl. I, 16, 4. Macq. Hist. Nat. Dipt. 1, 50, 12.

modestus Say.——U. States.——Say, J. Acad. Phil. III, 13, 3. Wied. Auss. Zw. I, 18, 8.

nigritibia Walk.——Huds. Bay.——Walker, List, etc. I, 16.

nivoriundus Fitch.—N. York.—A. Fitch, Winter Insects, p. 1.

pellucidus Walk. --- Huds. Bay. --- Walk. l. c. p. 21.

picipes Meig. — Europe (Meig.); Grænland (Stæger). — Meigen, etc. Stæger, Grænland's Antliater.

polaris Kirby. ——Amer. Boreal. ——Kirby, Suppl. to App. to Parry's First Voyage. Curtis, Ins. of Ross's Voy. p. lxxvii, tab. A, figs. 14 and 2. redeuns Walk.—U. States.—Walk. Dipt. Saund. V, 422. stigmaterus Say. Vid. glaucurus (Wied.).

taenionotus, Say. -- Indiana. -- Say, J. Acad. Phil. VI, 149.

trichomerus Walk. --- Huds. Bay. --- Walker, List, etc. I, 21.

turpis Zett.——Grænland.——Zetterstedt, Insecta Lapponica.

unicolor Walk.—Nova Scotia.—Walker, List, etc. I, 19. variabilis Stæger.—Grænland.—Stæger, Grænl. Antliater.

#### Tamypus Meig.

annulatus Say. — Penna. — Say, J. Acad. Phil. III, 15, 1. Wied. Auss. Zw. I, 19, 3.

baltimoreus Macq. -- Baltimore. -- Macq. Dipt. Exot. 5e Suppl. 15, 1. Mém. de Lille, 1855.

biplagiatus Harris. -- Cat. Ins. Mass.

choreus Meig. -- Europe (autores); U. States (Walk.). -- Meig, etc. Walk. Dipt. Saund. V, 422.

crassinervis Zett.--Grænland.--Zetterstedt, Ins. Lapponica. Stæger, Grænl. Antliater.

decedens Walk .- Huds. Bay .- Walker, List, etc. I, 22.

pictipennis Zett. -- Grænland. -- Zetterstedt, Ins. Lapponica. Stæger, Grænland's Antliater.

tibialis Stæger ——Grænland.——Stæger, Grænl. Antl.

tibialis Say.—Penna.—Say, J. Acad. Phil. HI, 15, 2. Wied. Auss. Zweifl. I, 20, 4.

#### Ceratopogon Meig.

basalis Walk. — Trenton Falls. — Walker, List, etc. I, 27.

debilipes Harris.——Cat. Ins. Mass. obscurus Walk.——Huds. Bay.——Walk. l. e. I, 26.

parvus Walk.—Huds. Bay.—Walk. l. c. I, 26.
soutellatus Say.—Indiana.—Say, J. Acad. Phil. VI, 150.
sordidellus Zett.—Grænland.—Zetterstedt, Ins. Lapponica. Stæger, GrænI. Antliater.

transiens Walk. —- Huds. Bay. —- Walker, List, etc. I, 25.

#### Asthenia Westw.

americana Walk .-- Huds. Bay .-- Walker, List, etc. I, 28.

## Lasioptera Meig.

ventralis Say. -- Penna. -- Say, Long's Exped. etc. App. p. 357. Wiedemann, Auss. Zweifl. I, 21, 1.

parva Walk. -- Huds. Bay. -- Walker, List, etc. I, 29.

### Cecidomyia Meig.

caliptera A. Fitch.—N. York.—Fitch, an Essay upon the wheat-fly,

- etc. (first edition in Amer. Quarterly Journ. of Agric. and Science. 1845, Vol. II, No. 2, tab. v, fig. 2; second edition, Trans. of N. Y. State Agricultural Society, 1847, Vol. V. Cecid. cerealis is distinguished in the second edition only.
- cereal's Fitch.—N. York.—Fitch, l. c. 2d edit. where this species is described and figured.
- culmicola Morris. Philadelphia. Morris (Miss) Proceed. Acad. of Nat. Sci. Philad. IV, 194 (1849). No description given, only remarks upon the habits, etc. Harris, Ins. N. Engl. p. 465.
- destructor Say. N. America. Say, J. Acad. Phil. I, 45, tab. 3, figs. 1—3. Wiedem. Auss. Zweifl, I, 21, 1. The references to the numerous papers on the habits of this insect may be found in Harris's Treatise on the Insects of New England, etc. and Fitch's Hessian Fly (in the Trans. of N. Y. State Agric. Soc. Vol. VI, and Dr. Emmons's Amer. Journ. of Agric. and Science, Vol. IV, V.)
- grossulariae Fitch.—N. York.—Fitch, First report upon noxious. beneficial, and other insects of the State of N. York, 1855, p. 176.
- ornata Say.—Penna.——Say, Long's Exp. App. p. 357. Wied. Auss. Zweifl. I, 22, 2.
- robiniae Hald.—U. States.—Haldem. Amer. Journ of Agric. and Sci. Vol. VI, 193 (with figures). Harris, Ins. New Engl. p. 452.
- salicis Fitch.—New York.—Fitch, Amer. Quart. Journ. of Agric. and Sci. I, 263. Harris, Ins. N. Engl. p. 451.
- spongivora Walk.—Huds. Bay.—Walker, List, etc. I, 30.
- tergata Fitch.—New York.—Fitch, an essay upon the wheat-fly, etc. (with figures).
- thoracica Fitch. -- New York. -- Fitch, l. c. (with figures).
- tritici Kirby.—Europe (autores); U. States (Harris, Fitch).——Kirby. Curtis, etc. Harris, Ins. New Engl. p. 474. Fitch, an essay, etc. (with figures). Amyot, Ann. Soc. Ent. de France, 1855, Bull. p. civ.

### Campylomyza Meig.

scutellata Say.—Missouri.—Say, J. Acad. Phil. III, 17, 1. Wied. Auss. Zw. I, 22, 1.

### Psychoda Meig.

- alternata Say.—Penna.—Say, Long's Exp. App. 358. Wied. Auss. Zweifl. I, 23.
- degenera Walk.——Hudson's Bay.——Walker, List, etc. I, 33.

### Erioptera Meig.

- caliptera Say. Missouri. Say, J. Acad. Phil. III, 17, 1. Wied. Auss. Zweifl. I, 23, 1. (E. caloptera.)
- fascipennis Zett.——Grænland.——Zetterstedt, Ins. Lapponica. Stæger, Grænl. Antliater.

### Limnobia Meig.

albivitta Walk. -- N. Scotia. -- Walker, List, etc. I, 37. (Pedicia.)

argus Say. --- N. W. Ter. (Say); N. Scotia (Walk.). --- Say, Long's Exp. App. p. 358. Wied. Auss. Zweifl. I, 33, 17. Walker, List, etc. I, 45.

badia Walk. --- N. Scotia. --- Walker, List, etc. I, 46.

biterminata Walk.——U. States.——Walker, Dipt. Saund. V, 437.

cana Walk .-- Huds. Bay .-- Walker, l. c. I, 48.

carbonaria Macq. — Carolina. — Macq. Dipt. Exot. I, 1, 66, 2. Mém. de Lille, 1838, 2e part. p. 70. (Limnophila.)

cinctipes Say. -- Missouri. -- Say, J. Acad. Phil. III, 21, 4. Wied. Auss. Zweifl. I, 32, 15.

contermina Walk.——Nova Scotia.——Walker, List, etc. I, 38. (Pedicia.) fascipennis Say. — Banks of the Mississippi (Say). — Say, J. Acad. Phil. III, 19, 1 (L. fasciapennis). Wied. Auss. Zweifl. I, 31, 14.

flavipes Macq. — Baltimore. — Macq. Dipt. Exot. 5e Suppl. p. 17, 2, tab. i, fig. 4. Mém. de Lille, 1855. (Ramphidia.)

goniphora Harris. — Cat. Ins. Mass. (L. rivosa, Lin.?)

gracilis Wied. ——Penna. ——Wied. Auss. Zweifl. I, 28, 8.

N. B. According to a manuscript note of Say (conf. my introductory remarks) he believed this species to be synonymous with his L. tenuipes (J. Acad. Phil. III, 21, 3).

humeralis Say. — Penna. — Say, J. Acad. Phil. III, 22, 5. Wied. Auss. Zweifl. I, 33, 16.

N. B. Wiedemann unites this species with L. tenuipes Say into one, deriving that opinion from comparison of original specimens. Nevertheless, Say seems not to have been of the same opinion, referring, in his manuscript note, L. tenuipes to L. gracilis Wied.

ignobilis Walk. --- North America. -- Walk. Dipt. Saund. V, 437.

intermedia Walk .-- Jamaica .-- Walker, List, etc. I, 47.

livida Say.—Mexico.—Say, J. Acad. Phil. VI, 150. monochroma Harris.—Cat. Ins. Mass.

macrocera Say. -- Florida (Say); N. Scotia (Walker). Say, J. Acad. Phil. III, 20, 2. Wied. Auss. Zweifl. I, 34, 19. Macq. Hist. Nat. Dipt. I, 108, 2. (Cylindrotoma.) Walker, List, etc. I, 40.

prominens Walk. - U. States. - Walker, Dipt. Saunders, V, 435. (Rhamphidia?)

rivosa Lin. — Europe (aut.); Grænland (Fabr.). — Linné, etc. O. Fabricins, Fauna Grænl. 200, 156. (Tipula.)

rostrata Say. ——Penna. (Say); Mass. (Harris Cat.). ——Say, J. Acad. Phil. III, 22, 6. Wied. Auss. Zweifl. I, 35, 20.

simulans Walk. —Huds. Bay. —Walker, List, etc. I, 45.

tenuipes Say. Vid. gracilis and humeralis. turpis Walk.—Canada.—Walker, Dipt. Saunders, V, 434.

### Limnobiorhynchus Westw.

canadensis Westw. — Canada. — Westw. Ann. de Ia Soc. Ent. IV 683 (1835). Macq. Dipt. Exot. I, 2, 177. Mém. de Lille, 1838, 3e part. 293.

### Toxorhina Lew.

fragilis Lew. -- Portorico. -- Lew. Lin. Ent. V, 401, tab. ii, figs. 16, 17, 18.

#### Aporosa Macq.

rufescens Low. Portorico. Low. Lin. Ent. V, 396, tab. ii, figs. 9 - 12.

virescens Lew .- St. Thomas .- Lew . l. c.

### Tipula Linn.

albilatus Walk .-- North America ?-- Walker, List, etc. I, 65.

alterna Walk. --- N. Scotia. --- Walker, List, etc. I, 72.

alternata Say.——Harris Cat. Ins. Mass.

annulata Say. ——Penna. ——Say, J. Acad. Phil. III, 25, 5. Wied. Auss. Zweifl. I, 54, 22.

annulicornis Say. --- Indiana --- Say, J. Acad. Phil. VI, 151.

borealis Curtis. ——Amer. Boreal. ——Curtis, Ross Exped. p. lxxvii, tab. A, fig. 15.

borealis Walk. --- N. Scotia. -- Walker, List, etc. I, 66.

N. B. This name must be changed, that of Curtis being published

collaris Say. — Penna. — Say, J. Acad. Phil. III, 25, 4. Wied. Auss. Zweifl. I, 52, 19.

costalis Say.——Penna.; Maryland (Say).——Say, J. Acad. Phil. III, 23, 2. Wied. Auss. Zweifl. I, 51, 17. Walk, List, etc. I, 70.

cunctans Say. Penna. Say, J. Acad. Phil. III, 23, 1. Wied. Auss. Zweifl. I, 45, 8.

disjuncta Walk.—U. States.—Walker, Dipt. Saunders, V, 442. dejecta Walk.—U. States.—Walker, l. c. V, 442.

dorsimacula Walk. -- N. Scotia. -- Walker, List, etc. I, 69.

duplex Walk .-- N. Scotia .- Walker, l. c. I, 66.

ferruginea Fab. ——Penna. (Say); N. Scotia (Walk.); Massachusetts (Harris Cat.).——Fabr. Syst. Ant. 28, 19. Wied. Dipt. Exot. I, 28, 9. Auss. Zw. I, 53, 21. Macq. Dipt. Exot. 4e Suppl. 13. Mém. de Lille, 1849, p. 317, tab. i, fig. 3. (Pachyrhina.) Walker, List, etc. I, 73.

filipes Walk.——Florida.——Walker, List, etc. I, 65.

flavicans Fab. N. America (Fabr.); N. Scotia (Walk.); Massachusetts (Harris Cat.).—Fabr. Syst. Antl. 24, 5 (flavescens, in erratis flavicans). Wied. Dipt. Exot. I, 25, 5. Auss. Zweifl. I, 48, 13. Walker, List, etc. I, 66.

frigida Walk.—N. Scotia.—Walker, l. c. I, 68. furca Walk.—N. America.—Walker, List, etc. I, 70.

glomerata Walk.——N. America.——Walker, l. c. I, 70.

longipennis Macq. — Cuba. — Macq. Dipt. Exot. I, 1, 57, 9. Mém. de Lille, 1838, 2e part. p. 61, tab. v, fig. 1.

macrocera Say. Penna. (Say); Florida (Macq.). Say, J. Acad. Phil. III, 24, 3. Wied. Auss. Zweifl. I, 52, 18. Macq. Hist. Nat. Dipt. I, 108, 2.

maculipennis Say .-- N. W. Territory (Say); N. Scotia (Walk.).-Say, Long's Exped. etc. App. p. 359. (Tip. maculatipennis.) Wied. Auss. Zweifl. I, 46, 9. Walker, List, etc. I, 67.

mexicana Macq. — Mexico. — Macq. Dipt. Exot. Suppl. 1, 12, 8. Mém. de Lille, 1844, p. 140. (Pachyrhina.)

nodulicornis Zett.—Grænland.—Zetterstedt, Ins. Lapponica. Stæger, Grænl. Antliater.

nubilis Harris. --- Cat. Ins. Mass.

platymera Walk.—Canada.—Walk. Dipt. Saund. V, 441.

pratorum Kirby. -- N. Amer. Coreal. -- Kirby, Fauna Bor. Amer. Ins. p. 310.

puncticornis Macq. —— Amer. Sept. —— Macq. Dipt. Exot. 4e Suppl. 15, 22. Mém. de Lille, 1849, p. 319, tab. i, fig. 6.

quadrilineata Macq. — Mexico. — Macq. Dipt. Exot. I, 1, 50, 4. Mém. de Lille, 1838, 2e part. p. 54. (Pachyrhina.)

resurgens Walk.—Newfoundland.—Walker, List, etc. I, 67. simulata Walk.—Canada.—Walker, Dipt. Saund. V, 441.

tricolor Fabr.—N. America (Fabr.); Massachusetts (Harris Cat.); Georgia (Wied.); Nova Scotia (Walk.). -- Fabricius, Entom. Syst. IV, 235, 9. Syst. Antl. 26, 13. Wiedem. Dipt. Exot. I, 22, 1. Auss. Zweifl. I, 44, 6. Walker, List, etc. I, 70.

triplex Walk.—N. Scotia.—Walker, List, etc. I, 66. trivittata Say.—Penna. (Say); Massachusetts (Harris Cat.).—Say, J. Acad. Phil. III, 26, 6. Wiedem. Auss. Zweifl. I, 42, 4.

vittipennis Harris. -- Cat. Ins. Mass. (tricolor Fabr.?)

N. B. O. Fabricius (p. 202) mentions following Tipulæ, as occurring in Grænland T. monoptera Lin. T. pennicornis Lin. T. atra Lin.

### Ptilogyna Westwood.

Macquartii Lew. North Amer. Lew., Lin. Entom. V, 392. Macq. Dipt. Exot. I, 1, 46, 1, tab. iii, fig. 2. Mém. de Lille, 1838, 2e part. p. 50. (Ptilogyna fuliginosa.)

### Ctenophora Fabr.

abdominalis Say.—Penna. (Say); Massachusetts (Harris Cat.).— Say, J. Acad. Phil. III, 18, 2. Wied. Auss. Zweifl. I, 37, 1. dorsalis Walk.—Newfoundland.—Walker, List, etc. I, 76.

fuliginosa Say. ---- Missouri. ---- Say, J. Acad. Phil. III, 18, 1. Wied. Auss. Zweifl. I, 40, 5.

Parrii Kirby. Amer. borealis. Kirby, Suppl. to the App. of Capt. Parry's first Voy. 1824.

succedens Walk.—Canada.—Walker, Dipt. Sannders, V, 448.

#### Bittacomorpina Westwood.

clavipes Fab.——Pennsylvania (Wied.); Trenton Falls; Nova Scotia (Walk.).—Fabr. Spec. Insect. II, 404, 19. Mant. Ins. II, 323, 21. Entom. Syst. IV, 239, 25 (Tipula). System. Antliat. 22, 4 (Ptychoptera). Gmel. Ap. Syst. Nat. V, 2815 (Tipula). Wiedem. Auss. Zweifl. I, 59, 1 (Ptychoptera). Macquart, Hist. Nat. Dipt. II, 649, 1. Dipt. Exot. I, 1, 64. Westwood, Lond. and Edinb. Phil. Mag. VI, 281 (Bittacomorpha). Walker, List, etc. I, 81.

#### Ptychoptera Fabr.

metallica Walk.——Huds. Bay.——Walker, List, etc. I, 80. quadrifasciata Say.——Penna.——Say, Long's Exped. App. p. 359. Wied. Auss. Zweifl. I, 60, 2.

### Mesperimus Walker.

brevifrons Walk. -- Huds. Bay. -- Walker, List, etc. I, 81.

### Amisomera Hoffmannsegg.

longicornis Walk. Huds. Bay. Walker, List, etc. I, 82.

#### Chionea Dalm.

aspera Walk.—Huds. Bay.—Walker, List, etc. I, 82. scita Walk.—N. America.—Walker, l. c. I, 82.

valga Harris. —New England. — Harris, Catal. Ins. Mass.; Id. Ins. Injur. to Veget. p. 482 (ed. 1852). (Description very incomplete.)

### Trichocera Meig.

bimacula Walk.—Nova Scotia.—Walker, List, etc. I, 84. brumalis Fitch.—New York.—Fitch, Winter Insects, etc. (1848). gracilis Walk.—New York Factory.—Walker, List, etc. I, 84.

maculipennis Meig. — Europe; Grænland. — Meigen, etc. Stæger, Grænl. Antliater.

regelationis Lin.—Europe (ant.); Grænland (Fabr.).—O. Fabricius, Fauna Greenl, 202, 157 (Tipula).

scutellata Sav. - Falls of Kakabikha, beyond Lake Superior. - Say, Long's Exped. App. p. 360. Wied. Auss. Zweifl. I, 60, 1.

### Dixa Meig.

nova Walk.—New York Factory.—Walker, List, etc. I, 85. recens Walk. -- New York Factory. -- Walker, List, etc. I, 85.

### Mycetobia Meig.

divergens Walk .-- U. States .-- Walker, Dipt. Saund. V, 418.

#### Asindulum Latreille.

tenuipes Walk. --- Huds. Bay. --- Walker, List, etc. I, 86.

### Platyura Meig.

fascipennis Say.—N. W. Territory (Say); Huds. Bay (Walk.).— Say, Long's Exped. App. p. 360. Wied. Auss. Zweifl. I, 61, 2. Walker, List, etc. I, 90.

subterminalis Say. ——Indiana. ——Say, J. Acad. Phil. VI, 152.

#### Dionomus Walker.

nebulosus Walk.—Huds. Bay.—Walker, List, etc. I, 87.

### Ceroplatus Fab.

carbonarius Bosc.—Carolina.—Bosc. Nouv. Diet. d'Hist. Nat. 1ère édit. IV, 543; 2e edit. T. V. p. 585, tab. B, 21, figs. 4, 4. Fabr. Syst. Antl. 16, 2. Wied. Auss. Zweifl. I, 61, 3. Dufour, Ann. des Sci. Nat. 2e ser. T. XI. (1839), p. 202. Macq. Dipt. Exot. I, 1, 77, 1. Mém. de Lille, 1838, 2e part, p. 81, tab. xi, fig. 1.

### Sciophila Hoffmannsegg.

bifasciata Say.—N. W. Territory.—Say, Long's Exp. App. p. 363. Wied. Auss. Zweifl. I, 62, 1.

fasciata Say.—Pennsylvania; Maryland.—Say, J. Acad. Phil. III, 26, 1. Wied. Auss. Zweifl. I, 62, 2.

grisea Walk.—Huds. Bay.—Walker, List, etc. I, 92.

hirticollis Say.—N. W. Territory.—Say, Long's Exp. App. p. 362. Wied. Auss. Zweiff. I, 64, 6.

littoralis Say.—Lake Superior.—Say, Long's Exp. App. p. 361. Wied. Auss. Zweifl. I, 64, 5.

obliqua Say.—N. W. Territory.—Say, Long's Exp. App. p. 363. Wied. Auss. Zweifl. I, 63, 3.

pallipes Say. -- N. W. Territory. -- Say, Long's Exp. App. p. 361. Wied. Auss. Zweifl. I, 63, 4.

### Leja Meig.

bivittata Say. -- Indiana. -- Say, J. Acad. Phil. VI, 152.

grænlandica Stæger. — Grænland. — Stæger, Grænl. Antl. (Boletina).

trifasciata Walk.—Huds. Bay.—Walker, List, etc. I, 93. triplagiata Harris.—Cat. Ins. Mass.

unicolor Walk. --- Huds. Bay. --- Walker, List, etc. I, 93.

varia Walk.---- Huds. Bay.---- Walker, List, etc. I, 93.

ventralis Say.—N. W. Territory.—Say, Long's Exped. App. p. 364. Wied. Auss. Zweifl. I, 65, 2.

ziczac Harris. — Cat. Ins. Mass.

#### Mycetophila Meigen.

bifasciata Walk.—Huds. Bay.—Walker, List, etc. I, 96. contigua Walk.—Nova Scotia.—Walker, List, etc. I, 96. despecta Walk.—Huds. Bay.—Walker, List, etc. I, 101.

discoidea Say. -- Indiana (Say); Massachusetts (Harris Cat.). -- Say, J. Acad. Phil. VI, 153.

ichneumonea Say.—Penna.—Say, J. Acad. Phil. III, 16, 1. Wied. Auss. Zweifl. I, 67, 3.

laeta Walk. --- Nova Scotia. --- Walker, List, etc. I, 97.

maculipennis Say .-- N. W. Territory .-- Say, Long's Exped. App. p. 365. Wied. Auss. Zweifl. I, 66, 2. nubila Say. ——Indiana. ——Say, J. Acad. Phil. VI, 153.

obscura Walk.—Huds. Bay.—Walker, List, etc. I, 101.

parva Walk.—Huds. Bay.—Walker, List, etc. I, 97. plebeja Walk.—Huds. Bay.—Walker, List, etc. I, 100.

propinqua Walk.—Nova Scotia.—Walker, List, etc. I, 96. sericea Say.—N. W. Territory.—Say, Long's Exp. App. p. 365. Wied. Auss. Zweifl. I, 66, 1.

#### Heteromyia Say.

fasciata Say. —North America. —Say, N. Amer. Entom. Vol. II, tab. 35. N. B. Say observes that this new genus is allied to Chironomus and Ceratopogon; but, according to the drawing he gives, it seems rather to belong to the present group.

#### Sciara Fabr.

abbreviata Walk. -- Huds. Bay. -- Walker, List, etc. I, 109.

atrata Say .-- N. W. Territory (Say); Huds. Bay (Walk.).-- Say, Long's Exp. App. 366, 1. Wied. Auss. Zweifl. I, 70, 9. Walker, List, etc. I, 105.

dimidiata Say .- Louisiana .- Say, Spec. of Amer. Ins. found by Jos. Barabino, p. 15.

exigua Say.—N. W. Territory (Say); Huds. Bay (Walk.).—Say, Long's Exp. App. p. 367, 4. Wied. Auss. Zweifl. I, 69, 7. Walker, List, etc. I, 105.

exilis Say. -- Indiana. -- Say, J. Acad. Phil. VI, 154.

femorata Say. ——Penna. ——Say, J. Acad. Phil. III, 78, 1. Wied. Auss. Zweifl. I, 70, 8.

flavipes Meig. — Europe; Grænland. — Meigen, etc. Stæger, Grænl. Antliater.

fraterna Say. -- N. W. Territory. -- Say, Long's Exp. App. p. 367, 3. Wied. Anss. Zweifl. I, 69, 6.

fuliginosa Fitch. -- New York. -- Fitch, First and Second Report, etc. p. 255 (Molobrus).

inconstans Fitch.—New York.—Fitch, I. c. p. 255 (Molobrus). iridipennis Zett.—Grænland.—Zetterstedt, Ins. Lapponica. Stæger, Grænl. Antliater.

lurida Walk. — Treuton Falls. — Walker, List, etc. I, 106. Dipt. Saunders, V, 418.

mali Fitch. -- New York. -- Fitch, First and Second Report, etc. p. 254 (Molobrus).

nigra Wied. — Savannah. — Wied. Dipt. Exot. I, 44, 7. Auss. Zweifl. I, 68, 3.

obscura Harris.——Cat. Ins. Mass.

perpusilla Walk.—Huds. Bay.—Walker, List, etc. I, 106.

polita Say.—N. W. Territory (Say); Huds. Bay (Walk.).—Say, Long's Exp. App. p. 366, 2. Wied. Auss. Zw. I, 70, 10. Walker, List, etc. I, 109.

punctata Walk.—N. America.—Walker, List, etc. I, 106. robusta Walk.—Huds. Bay.—Walker, List, etc. I, 105.

rotundipennis Maeq.——Carolina.——Maeq. Dipt. Exot. I, 2, 178. Mém. de Lille, 1838, 3e part. p. 294.

unicolor Say. — Mexico. — Say, J. Acad. Phil. VI, 153.

vulgaris Fitch. --- New York. --- Fitch, First and Second Report, etc. p. 255 (Molobrus).

#### Sinenuliumna Latr.

calceatum Harris ——Cat. Ins. Mass.

decorum Walk. ——Huds. Bay. ——Walker, List, etc. I, 112.

invenustum Walk.—Huds. Bay.—Walker, List, etc. I, 112.

reptans Lin.—Europe (aut.); Grænland (O. Fabr.).—O. Fabr. Fauna Grænl. p. 211, 173 (Culex).

venustum Say. -- Ohio. -- Say, J. Acad. Phil. III, 28. Wied. Auss. Zweifl. I, 71, 1.

vittatum Zett. — Grænland. — Zetterstedt, Ins. Lapponica. Stæger, Greenl. Antliater.

#### Scatonse Geoffr.

atrata Say. ——Philadelphia. ——Say, Long's Exp. App. p. 367. Wied. Auss. Zweifl. I, 71, 1.

nitens Walk.——Huds. Bay.——Walker, List, etc. I, 114.

nitida Harris.——Cat. Ins. Mass.

obscura Walk.—Huds. Bay.—Walker, List, etc. I, 114. pusilla Walk.—Huds. Bay.—Walker, List, etc. I, 114.

### Arthria Kirby.

analis Kirby. —Huds. Bay. —Kirby, N. Amer. Zool. Ins. 311, 1. Walker, List, etc. I, 115.

### Penthetria Meig.

atra Macq.—Philadelphia (Macq.); N. Scotia; Huds. Bay (Walk.).— Macquart, Hist. Nat. Dipt. I, 175, 2. Dipt. Exot. I, I, 85, I. Mcm. de Lille, 1838, 2e part. p. 89, tab. xii, fig. 3 (Eupeitenus ater). Walker, List, etc. I, 115.

heros Say. — Mexico. — Say, J. Acad. Phil. VI, 154.

lugubris Harris. -- Cat. Ins. Mass.

### Piccia Hoffmansegg.

bimaculata Walk.——U. States.——Walker, Dipt. Saund. V, 422. rufithorax Walk.——Jamaica.——Walker, List, etc. I, 116.

### Dilophus Meigen.

fraternus Harris.——Cat. Ins. Mass. fulvicoxa Walk.——Hnds. Bay.——Walker, List, etc. I, 117.

orbatus Say. ——Penna. —Say, J. Acad. Phil. III, 77, 5 (Bibio). Wied. Auss. Zw. 1, 77, 6.

serraticollis Walk. ——Huds. Bay. ——Walker, List, etc. I, 117.

spinipes Say.—Missouri.—Say, J. Acad. Phil. III, 79, 2. Wied. Auss. Zweifl. I, 75, 1.

stigmaterus Say. — Missouri. — Say, J. Acad. Phil. III, 78, 1. Wied. Auss. Zweifl. I, 76, 4.

- stygius Say. Mexico. Say, J. Acad. Phil. VI, 155.
- stygius Say (bis). -- Louisiana. -- Say, Ins. of Louis. collect. by J. Barabino.
- thoracicus Say. -- Pennsylvania, Maryland. -- Say, J. Acad. Phil. III, 80, 3. Wied. Auss. Zweifl. I, 77, 5.

#### Ribio Geoffroy.

- albipennis Say. ——Pennsylvania (Say); Massachusetts (Harris Cat.). —— Say, J. Acad. Phil. III, 77, 3. Wied. Auss. Zweifl. I, 80, 7. Macq. Dipt. Exot. I, 1, 88, 5. Mém. de Lille, 1838, 2e part. p. 93, tab. xiii, fig. 2. Walker, List, etc. I, 121.
- articulata Say. Penna. Say, J. Acad. Phil. III, 77, 4. Wied. Auss. Zweifl. I, 81, 8.
- articulosa Harris. -- Cat. Ins. Mass.
- baltimorica Macq.—Baltimore.—Macq. Dipt. Exot. 5e Suppl. p. 17, 12. Mém. de Lille, 1855.
- brunnipes Fab.—Newfoundland (Fabr.); Massachusetts (Harris Cat.); Mexico (Walk.). -- Fabr. Mant. Ins. II, 327, 69 (Tip. rufipes). Ent. Syst. IV, 250, 80 (Tip. brunnipes). Syst. Antl. 54, 15 (Hirtea). Wied. Auss. Zweifl. I, 81, 10. Walker, List, etc. I, 120.
- canadensis Macq.—Canada.—Macq. Dipt. Exot. I, 2, 179. Mém. de Lille, 1838, 3e part. p. 295.
- femorata Wied.—N. America (Wied.); Massachusetts (Harris Cat.).— Wied. Dipt. Exot. 35, 2. Auss. Zweifl. I, 79, 4.
- fumipennis Walk.——Huds. Bay.——Walker, List, etc. I, 122. fuscipennis Macq.——N. America.——Macq. Dipt. Exot. I, 1, 87, 3. Mém. de Lille, 1838, 2e part. p. 91.
- gracilis Walk.—Nova Scotia.—Walker, List, etc. I, 123. heteroptera Say.—Maryland.—Say, J. Acad. Phil. III, 77, 2. Wied. Auss. Zweifl. I, 80, 6.
- humeralis Walk. --- Nova Scotia. --- Walker, List, etc. I, 121.
- pallipes Say. ——Penna. ——Say, J. Acad. Phil. III, 76, 1. Wied. Auss. Zweifl. I, 81, 9.
- rufithorax Wied.—Penna.—Wied. Auss. Zweifl. I, 78, 2.
- scita Walk. --- Nova Scotia. --- Walker, List, etc. I, 122.
- striatipes Walk.——Huds. Bay.——Walker, List, etc. I, 122.
- thoracica Say.—Florida.—Say, Long's Exp. App. p. 368. Wied. Auss. Zweifl. I, 78, 1.
- vestita Walk. --- Nova Scotia. --- Walker, List, etc. I, 122.
- xanthopus Wied .-- New York (Wied.); Nova Scotia (Walk.) .-Wied. Auss. Zweifl. I, 80, 5. Macq. Dipt. Exot. I, 1, 88, 4. Mém. de Lille, 1838, 2e part. p. 92. Walker, List, etc. I, 121.

### Rhyphus Latr.

- alternatus Say. ——Penna. (Say); Massachusetts (Harris Cat.). ——Say, J. Acad. Phil. 111, 27, 2. Wied. Auss. Zweifl. I, 82, 1.
- marginatus Say. -- Penna. -- Say, J. Acad. Phil. III, 27, 1. Wied. Auss. Zweifl. I, 82, 2.
- scalaris Wied. —Georgia. —Wied. Auss. Zweifl. II, 618, 8.

### Fam. II. STRATIOMYD.E.

#### Beris Latr.

- brevis Walk.—Trenton Falls.—Walker, List, etc. I, 127.
- dorsalis Say. --- Ky. (Say). -- Say, Long's Exp. App. p. 377, 2 (Sargus); manuscript note of Say: "is it same as fuscitarsis?" Wied. Auss. Zweifl. I, 540, 3. Lew. Ent. Zeit. VI, 306, 11. Walker, List, etc. V, 11.
- fuscitarsis Say. ——Pennsylvania, Indiana (Say); Massachusetts (Harris Cat.).——Say, J. Acad. Phil. III, 29, and VI, 155.
- lata Walk.—New York.—Walker, List, etc. I, 127.
- quadridentata Walk.——Huds. Bay.——Walker, List, etc. I, 127.
- rufipalpis Wied. -- Mexico. -- Wied. Auss. Zweifl. II, 619, 10 (Xylophagus). Macq. Dipt. Exot. I, 1, 172 (Diphysa, nov. gen.). Lew. Stett. Entom. Zeit. VI, 306, 13. Walker, List, etc. V, 11.
- viridis Say.—Penna.—Say, Long's Exp. App. p. 368, 1. Wied. Auss. Zweifl. I, 83, 2. Lew. Stett. Entom. Zeit. VI, 305, 10. Walker, List, etc. V, 11.

### Cyphomyia Wied.

- elegans Wied. Mexico. Wied. Auss. Zweifl. II, 58, 8. Walker, List, etc. V, 15.
- fenestrata Macq.—Yucatan.—Macq. Dipt. Exot. Suppl. I, 48, 3. Méni. de Lille, 1844, p. 176. Walker, List, etc. V, 16.

### Elermetia Latr.

- coarctata Macq. Mexico. Macq. Dipt. Exot. Suppl. I, 50, 2, pl. v, fig. 4. Mém. de Lille, 1844, p. 178. Walker, List, etc. V, 20.
- illucens Lin. Brasil, Jamaica (Walk.); New Mexico. Lin. Syst. Nat. II, 979, 2 (Musca illucens and leucopa). Degeer, Ins. VI, 205, 3, pl. xxix, fig. 8. (Nemotelus). Fabr. Mant. II, 328, 2. (Bibio) Entom. Syst. IV, 253, 2. (Mydas) Syst. Antl. 62, 1. (Hermetia) Latreille, Dict. d'Hist. Nat. XXIV, 194, 54. Hist. Crust. et Ins. XIV, 338. Gen. Crust. et Ins. IV, 271. Lamarck, Hist. Anim. sans Vert. III, 355, 2. (Xylophagus) Wied. Auss. Zweifl. II, 22, 1, pl. vii, fig. 3. Guérin et Percheron, Genera, etc. Dipt. tab. iv. Macq. Hist. Nat. Dipt. I, 228, 1. Dipt. Exot. I, 1, 177, 1, pl. xxi, fig. 2. Mém. de Lille, 1838, 2e part. p. 181. Walker, List, etc. V, 20.
- planifrons Macq. Yucatan. Macq. Dipt. Exot. Suppl. 1, 50, 3. Mém. de Lille, 1844, p. 178. Walker, List, etc. V, 22.
- sexmaculata Macq.—Porto Rico.—Macq. Hist. Nat. Dipt. I, 229, 4. Walker, List, etc. V, 22.

#### Stratiomys Geoffr.

- abdominalis Harris.——Cat. Ins. Mass. albomaculata Macq.——St. Domingo.——Macq. Dipt. Exot. I, 1, 189, 12. Mein. de Lille, 1838, 2e part. p. 193 (Odontomyia). Walker, List, etc. V, 40.

- amoenifrons Harris. -- Cat. Ins. Mass.
- brevipennis Oliv.——Carolina.——Olivier, Encyclop. Méthod. VIII, 434, 13 (Odontomyia).
- canadensis Walk. Canada. Walker, List, etc. V, 310.
- cincta Oliv. Carolina. Oliv. Eneye. Méth. Ins. VIII, 432, 3 (Odontomyia). Macq. Dipt. Exot. I, 2, 189. Mém. de Lille, 1838, 3e part. p. 305 (Odontomyia). Walker, List, etc. V, 38.
- coronata Serv. Vid. flaviceps.
- dorsalis Fabr. West Indies. Fabr. Syst. Antl. 82, 20. Wied. Auss. Zw. II, 66, 9. Walker, List, etc. V, 47.
- emarginata Macq.—Mexico.—Macq. Dipt. Exot. I, 1, 190, 14. Mém. de Lille, 1838, 2e part. p. 193 (Odontomyia). Walker, List, etc. V, 40.
- flaviceps Macq. —Philadelphia. Macq. Hist. Nat. Dipt. I, 245, 1. Guérin, Iconogr. Texte, 544 (Insectes). Ibid. pl. 98, fig. 6 (S. Coronata). Walker, List, etc. V, 37.
- flavicornis Oliv.—North America.—Olivier, Encyc. Méth. Ins. VIII. 433, 9. Macq. Hist. Nat. Dipt. I, 248, 14 (Odontomyia). Walker, List, etc. V, 38.
- flavifasciata Macq. Mexico. Macq. Dipt. Exot. 4e Suppl. 53, 36. Mém. de Lille, 1849, p. 357 (Odontomyia).
- goniphora Say. Mexico. Say, J. Acad. Phil. VI, 161. Walker, List, etc. V, 114.
- hieroglyphica Oliv.——Carolina.——Olivier, Encycl. Méth. Ins. VIII, p. 434, 11 (Odontomyia).
- ischiaca Harris.——U. States.——Harris, Catal. Ins. of Mass. Walker, List, etc. III, 529 (description given).
- intermedia Wied.—North America (Wied.); Mass. (Harris Cat.); New York, Trenton Falls, Hudson's Bay, Nova Scotia (Walk.).—Wied. Auss. Zwiefl. II, 64, 5. Walker, List, etc. III, 534, and V, 38.
- interrupta Oliv.—Carolina.—Olivier, Encyc. Method. Ins. VIII, p. 433, 8 (Odontomyia).
- Lefebvrei Macq. Mexico. Macq. Dipt. Exot. I, 1, 189, 13. Mém. de Lille, 1838, 2e part. p. 193 (Odontomyia). Walker, List, etc. V, 40 and 311.
- limbipennis Macq. America. Macq. Dipt. Exot. Suppl. 2, 30, 24 (Odontomyia). Walker, List, etc. V, 39.
- lineolata Macq. Virginia. Macq. Dipt. Exot. 4e Suppl. 48, 6, tab. iii, fig. 5. Mém. de Lille, 1849, p. 352 (Odontomyia).
- maculifrons Walk.——Honduras.——Walker, List, etc. III, 536.
- Meigenii Wied. ——Savannah (Wied.); Montreal, New York (Walk.). ——Wied. Auss. Zweifl. II, 61, 2 (tab. viii, fig. 7). Walker, List, etc. III, 532, and V, 36 and 310.
- nigrifrons Walk.—Huds. Bay.—Walker, List, etc. III, 531.
- Norma Wied.—North America (Wied.); Huds. River, Nova Scotia (Walk.).—Wied. Auss. Zweifl. II, 62, 3. Walker, List, etc. III, 530, and V, 37.
- Nymphis Walk.——Huds. Bay.——Walker, List, etc. III, 530.
- obscura Oliv.—Carolina.—Oliv. Eneye. Meth. Tom. VIII, p. 433, 7.

- Macq. Dipt. Exot. I, 2, 189. Mém. de Lille, 1838, 3e part. p. 305 (Odontomyia). Walker, List, etc. V, 38.
- pallipes Fab. -- North America (or South America? Fabr.); New York, Huds. Bay (Walk.).—Fabr. Ent. Syst. IV, 265, 12. Syst. Antl. 81,13 (these works disagree with reference to the country). Wied. Auss. Zweifl. II, 76, 26. Walker, List, etc. III, 534 and V, 39.
- Paron Walk.—New York, Trenton Falls.—Walker, List, etc. III, 536 (Odontomyia).
- pulchella Macq. -- Georgia. -- Macq. Dipt. Exot. I, 1, 180, 3 pl. xxii, fig. 2. Mem. de Lille, 1838, 2e part. p. 184. Walker, List, etc. V, 38.
- quadripunctata Harris.----Cat. Ins. Mass.
- robusta Walk.——North America.——Walker, List, etc. V, 37.
- rubricornis Macq. Yucatan. Macq. Dipt. Exot. Suppl. I, 53, 21. Mém. de Lille, 1844, p. 181 (Odontomyia). Walker, List, etc. V, 46.
- trivittata Say. -- Mexico. -- Say, J. Acad. Phil. VI, 160. Walker, List, etc. V, 114.
- vertebrata Say .--- N. W. Territory (Say); Nova Scotia (Walk.) .--- Say, Long's Exp. App. p. 369 (Odontomyia). Wied. Auss. Zweifl. II, 73, 20. Walker, List, etc. III, 532, and V, 39.
- vicina Macq. Philadelphia. Macq. Dipt. Exot. I, 1, 181, 4. Mém. de Lille, 1838, 2e part. p. 185 (= 5 of S. flaviceps Macq.?). Walker, List, etc. V, 38.
- vicina Macq. Cuba. Macq. Dipt. Exot. I, 1, 188, 11. Mém. de Lille, 1838, 2e part. p. 192 (Odontomyia). Walker, List, etc. V. 40.
- virgo Wied. Georgia. Wied. Auss. Zweifl. II, 69, 13. Walker, List, etc. V, 39.
- viridicineta Harris. -- Cat. Ins. Mass.

#### Oxycera Meig.

- Liburna Walk.—Jamaica.—Walker, List, etc. III, 528. maculata Oliv.—Carolina.—Oliv. Encyclop. Méth. VIII, 600, 4. Macq. Dipt. Exot. I, 2, 190. Mém. de Lille, 1838, 3e part. p. 306. Walker, List, etc. V, 75.
- metallica Wied. --- St. Thomas. --- Wied. Auss. Zweifl. II, 60. Walker, List, etc. V, 75.
- variegata Oliv. -- N. Carolina. -- Olivier, Encyclop. Méthod, VIII. 600. 3. Macq. Dipt. Exot. I, 2, 191. Mém. de Lille, 1838, 3e part. p. 307. Walker, List, etc. V, 74.

### Nemotelus Geoffr.

- albirostris Macq. Virginia. Macq. Dipt. Exet. 4e Suppl. 55, 3. Mém. de Lille, 1849, p. 359, tab. iii, fig. 8.
- carneus Walk .-- N. America; Hudson's Bay .-- Walker, List, etc. III,
- pallipes Say. ——Penna. ——Say, J. Acad. Phil. III, 29. Wied. Auss. Zw. II, 45, 2. Walker, List, etc. V, 83.

polyposus Say. -- Mexico. -- Say, J. Acad. Phil. VI, 1, p. 160. Walker, List, etc. V, 115.

#### Clitellaria Meigen.

- Anchialus Walk. Jamaica. Walker, List, etc. III, 522 ("var. chalybeæ Wied.?") according to Walk. l. c. IV, 1157.
- chalybea Wied. St. Thomas. Wied. Anal. Ent. 30, 36. Auss. Zw. II, 49, 4. Walker, List, etc. V, 60.
- fenestrata Macq. --- Yucatan. --- Macq. Dipt. Exot. 1er Suppl. 54, 3. Mém. de Lille, 1844, p. 182 (Ephippium fenestrata). Walker, List, etc. V, 61.
- Halala Walk.——Honduras.——Walker, List, etc. III, 523.

### Sargus Fabr.

Alchidas Walk. — Jamaica. — Walker, List, etc. III, 517.

Bagosas Walk. — Jamaica. — Walker, l. c. III, 518.

bicolor Wied. — Porto Rico. — Wied. Auss. Zweifl. II, 41, 28. Walker, List, etc. V, 93.

debilis Walk.—U. States.—Walker, Dipt. Saunders. II, 83.

decorus Say.—Pennsylvania, Florida (Say); Massachusetts (Harris Cat.); Trenton Falls (Walk.).—Say, Long's Exped. App. p. 376. Wied. Auss. Zweifl. II, 38, 19. Walker, List, etc. V, 90.

dorsalis Say.—vid. Beris dorsalis.

lateralis Macq. — Cuba. — Macq. Hist. Nat. Dipt. I, 262, 7. Walker, List, etc. V, 91.

linearis Walk .-- Mexico .-- Walker, l. c. V, 318.

nigrifemoratus Macq. — Mexico. — Macq. Dipt. Exot. 2e Suppl. 31, 10. Mem. de Lille, 1846, p. 47. Walker, List, etc. V, 90.

pallipes Say.—Penna.—Wied. Auss. Zweifl. II, 41, 27. Walker, List, etc. V, 90.

N. B. I never found that species in the works of Say.

scutellatus Harris.—Cat. Ins. Mass.

speciosus Macq. — Yucatan. — Macq. Dipt. Exot. 1er Suppl. 56, 9. Mém. de Lille, 1844, p. 184. Walker, List, etc. V, 92.

testaceus Fabr. -- South America (Fab. Wied.); Yucatan (Macq.). --Fabr. Syst. antl. 257, 6. Wied. Auss. Zweifl. II, 35, 15. Macq. Dipt. Exot. I, 1, 203, 5, and Suppl. 1, 57. Mém. de Lille, 1838, 2e part. 1, p. 207, and 1844, p. 85. Walker, List, etc. III, 517; V, 94.

trivittatus Say. -- Indiana. -- Say, J. Acad. Phil. VI, 159. Walker, List, etc. V, 90.

viridis Say. ——Cincinnati (Say); N. Scotia (Walker). ——Say, J. Acad. Phil. III, 87. Wied. Auss. Zweifl. II, 39, 22. Walker, List, etc. III, 519; V, 99 (Chrysomyia).

xanthopus Wied. — Penna. — Wied. Auss. Zweifl. II, 40, 23. Walker, List, etc. V, 99 (Chrysomyia).

### Chauna Lew.

variabilis Lew.——Cuba.——Lew. Ent. Zeit. VIII, 370, pl. i, figs. 11-15. Walker, List, etc. V, 102. 2

### Fam. III. XYLOPHAGI.

### Rachicerus Halíday.

fulvicollis Halid. ——Georgia. ——Walker, List, etc. I, 124; V, 104.

### Xylophagus Meig.

americanus Wied.—U. States.—Wied. Dipt. Exot. I, 51, 1. Auss. Zweifl. I, 84, 1. Walker, List, etc. V, 106. (Walker, List, etc. I, 128, belongs to the following genus.)

fasciatus Say. -- Indiana. -- Say, J. Acad. Phil. VI, 155.

fasciatus Walk .--- Huds. Bay .--- Walker, List, etc. I, 128 (belongs to genus Subula, according to Walker, V, 110).

fascipennis Harris .-- Cat. Ins. Mass.

heros Harris. -- Cat. Ins. Mass.

incisuralis Harris.——Cat. Ins. Mass. persequus Walk.——N. America.——Walker, Dipt. Saunders. I, I.

politus Harris. --- Cat. Ins. Mass.

reflectens Walk .-- N. York .-- Walker, List, etc. I, 129 (Subula, vid-Walk. l. c. V, 110).

rufipalpis Wied.—— Vid. Beris rufipalpis. triangularis Say.——Missouri.—— Say, J. Acad. Phil. III, 30. Wied. Auss. Zweifl. I, 85, 2. Walker, List, etc. I, 128 (?), and V, 106. N. B. According to Macquart, Dipt. Exot. (Mém. de Lille, 1838, 2e part. p. 175), this species and Xyl. Americanus belong to genus Subula.

#### Dialysis Walk.

dissimilis Walk .--- N. America .--- Walker, Dipt. Saund. I, 4. List, etc. I, 128 (X. Americanus Wied.?)

#### Caenomyia Latr.

pallida Say. --- St. Peter's River (Say); N. York (Walk.); Mass. (Harris Cat.).—Say, Long's Exp. App. p. 369. Amer. Ent. II. Wied. Auss. Zweifl. I, 86, 1. Harris, Ins. New Engl. p. 407. Walker, List, etc. I, 131; V, 113. Macq. Dipt. Exot. 5e Suppl. p. 38, 1. Mém. de Lille, 1855. N. B. About Sicus Crucis Fab. (Ent. Syst. IV, 264, 7, and Syst. antl. p. 76, 5) from West Indies, conf. Wied. Auss. Zweifl. I, 86.

### Fam. IV. TABANIDA.

### Pangonia Latr.

aurulans Wied. ---- Wied. Auss. Zweifl. II, 620, 12. Walker, List, etc. V, 120.

basilaris Wied. — Mexico. — Wied. Auss. Zweifl. II, 621, 13. Walker, l. c. V, 120.

bicolor Macq. — Mexico. — Macq. Dipt. Exot. 4e Suppl. p. 27, 57. Mém. de Lille, 1849, p. 331.

fusiformis Walk .-- N. America .-- Walker, Dipt. Saund. I, 19 (translucens Macq. var.?)

- incisa Wied. Arkansas. Wied. Auss. Zweifl. I, 90, 6. Say, J. Acad. Phil. III, 31 (P. incisuralis; it is not obvious why Wiedemann changed the name). Walker, List, etc. V, 120.
- incisuralis Say. -- Vid. incisa Wied..
- nigronotata Macq. Mexico. Macq. Dipt. Exot. 4e Supp. p. 27, 56. Mém. de Lille, 1849, p. 330, tab. ii, fig. 5.
- planiventris Macq. -- Mexico. -- Macq. Dipt. Exot. 4e Suppl. p. 26, 55. Mém. de Lille, 1849. p. 330.
- semiflava Wied. --- Mexico. --- Wied. Auss. Zweifl. II, 622, 16. Walker, List, etc. V, 120.

#### Silvius Meig.

isabellinus Wied. --- North America (Wied.); Ohio (Walk.). --- Wied. Auss. Zweifl. I, 112, 3. Walk. I, 192; V, 274.

### Tabanus Linn.

- abdominalis Fab. -- Carolina (Fab.); Florida (Walk.). -- Fabr. Syst. ant. p. 96, 15. Pal. Beauv. Ins. Dipt. tab. ii, fig. 4, p. 101. Wied. Dipt. Exot. I, 65, 6. Auss. Zwiefl. I, 116, 7. Walker, List, etc. I, 146, and V, 186.
- abiens Walk.—West Indies.—Walker, List, etc. I, 191 (Dichelacera). affinis Kirby.—Amer. Boreal.—Kirby, Fauna Boreali-Amer. IV, 313, 1. Walker, List, etc. I, 156.
- albiscutellatus Macq. --- Mexico. --- Macq. Dipt. Exot. 4e Suppl. p. 34, 107. Mém. de Lille, 1849, p. 338, tab. ii, fig. 9.
- americanus Drury.—New York.—Drury, Ins. p. 104, tab. xliv. fig. 3. americanus Först.—(Quoted by Wiedem. as synom. of T. ruficornis, Fab.). Förster, Nov. Sp. Cent. I, 100.
- americanus Pal.—United States.—Pal. Beauv. Ins. Dipt. tab. iii, fig. 6, p. 222.
- annulatus Say. Missouri. Say, J. Acad. Phil. III, 32, 2. Wied.
- Auss. Zweifl. I, 185, 111. Walker, List, etc. I, 181. apicalis Macq.—Mexico.—Macq. Dipt. Exot. 2e Suppl. 20, 102. Mém. de Lille, 1846, p. 36. Walker, List, etc. V, 188.
  - N. B. The name must be changed. Tab. apicalis Wied. from Brazil, has the priority.
- ater Pal. Beauv. ——Georgia (Wied.).——Pal. Beauv. Ins. Dipt. tab. ii, fig. 5, p. 100. Wied. Dipt. Exot. I, 74, 23. Auss. Zweifl. I, 136, 39. Walker, List, etc. V, 176.
- atratus Fabr. --- N. America (aut.); Mexico (Macq.). --- Fabr. Syst. Entom. p. 789, 9. Entom. Syst. IV, 366, 16. Syst. antl. p. 96, 16. Wied. Dipt. Exot. I, 63, 2. Auss. Zweifl. I, 114, 3. Macq. Dipt. Exot. I, 1, 142, 41. Mém. de Lille, 1838, 2e part. p. 146. Harris, Ins. New Engl. p. 405. Walker, List, etc. I, 145; V, 177. N. B. T. niger Pal. is synonym accord. to Wied.
- baltimorensis Macq. -- Baltimore. -- Macq. Dipt. Exot. 5e Suppl. p. 34, 129. Mém. de Lille, 1855.
- bicolor Macq. -- South Carolina. -- Macq. Dipt. Exot. 2e Suppl. 21, 105. Mém. de Lille, 1846, p. 37. Walker, List, etc. V, 183.

20 TABANIDA.

```
bicolor Wied.——N. America.——Wied. Dipt. Exot. I, 96, 58. Auss
Zwiefl. I, 188, 115. Walker, List, etc. I, 163 and 182; V, 184.
```

- bipartitus Walk .-- Honduras .-- Walker, List, etc. I, 158.
- caesiofasciatus Macq. Baltimore. Macquart, Dipt. Exot. 5e Suppl. p. 32, 126. Mem. de Lille, 1855.
- calens Linn.—Penna. (Degeer); America (Wied.); N. Scotia (Walk.);
  South America (Fab.).—Linn. Syst. Nat. II, 1000, 6. Degeer, Ins.
  VI, 226, 1 (Tab. giganteus), tab. xxx. fig. 1. Fabr. Ent. System. IV,
  364, 9. Syst. antl. p. 94, 7. Wied. Dipt. Exot. I, 72, 19. Auss.
  Zwiefl. I, 134, 36. Walker, List, etc. I, 149; V, 181.
- carolinensis Macq. ——Carolina. ——Macq. Dipt. Exot. I, 1,145, 47. Mém. de Lille, 1838, 2e part. p. 149. Walker, List, etc. V, 179.
- catenatus Walk.——Massachusetts.——Walker, List, etc. I, 148, and V, 172.
- cheliopterus Rondani. Carolina. Rondani, Nuovi Ann. dell. Scienze Natur. di Bologna, 1850.
- cinctus Fab.—Virginia (Wied.); Mexico (Walk.); Mass. (Harris).—Fabr. Ent. Syst. IV, 366, 18. Syst. antl. p. 97, 20. Meig. Syst. Beschr. II, 42, 16 (erroneously quoted as European). Wied. Dipt. Exot. I, 67, 10. Auss. Zweifl. I, 119, 12. Walker, List, etc. V, 179, and I, 153.
- cingulatus Macq.—Philadelphia.—Macq. Dipt. Exot. I, 1, 144, 46. Mém. de Lille, 1838, 2e part. p. 148. Walker, List, etc. V, 183.
- circumfusus Wied. Mexico. Wied. Auss. Zweifl. II, 624, 21. Walker, List, etc. V, 188.
- coffeatus Macq.—Philadelphia.—Macq. Dipt. Exot. 2e Suppl. 23, 109. Mém. de Lille, 1846, p. 39. Walker, List, etc. V, 178.
- comes Walk.—Huds. Bay; N. Scotia.—Walker, List, etc. I, 172 (Tab. inscitus), and V, 173.
- completus Walk.——St. Thomas.——Walker, List, etc. I, 185.
- confusus Walk.——Georgia.——Walker, List, etc. I, 147.
- conterminus Walk .-- U. States .-- Walker, Dipt. Saund. I, 24.
- costalis Wied.—Kentucky.—Wied. Auss. Zweifl. I, 173, 94. Macq.
   Dipt. Exot. I, 1, 146, 50. Mém. de Lille, 1838, 2e part. p. 150.
   Walker, List, etc. V, 185.
- crassicomis Wied.——America (North?)——Wied. Dipt. Exot. I, 71, 18. Auss. Zwiefl. I, 130, 29. Walker, List, etc. V, 181.
- derivatus Walk.—N. America.—Walker, List, etc. I, 151.
- dorsonotatus Macq. Carolina. Macq. Dipt. Exot. 2e Suppl. 22, 106. Mém. de Lille, 1846, p. 38. Walker, List, etc. V, 178.
- divisus Harris.——Cat. Ins. Mass.
- duplex Walk.—Huds. Bay.—Walker, List, etc. I, 173 (Tab. imitans), and V, 173.
- erythrotelus Walk.——Bolton.——Walker, Dipt. Saund. I, 25, pl. ii, fig. 1.
- exaestuans Linn.—America (North?); South America (Linn. Fabr.).
  —Linn. Syst. Nat. II, 1000, 8. Degeer, Ins. VI, 229, 8, tab. xxx, fig. 5. Fabr. Ent. Syst. IV, 365, 13. Syst. antl. p. 96, 12. Wied. Auss. Zweifl. I, 143, 51. Walker, List, etc. V, 180.

- fasciatus Walk. --- N. America. --- Walker, Dipt. Saunders. I, 68 (Diche-
- ferrifer Walk. --- W. Indies. --- Walker, Dipt. Saund. I, 30.
- ferrugatus Fab. Carolina (Fab.); Mass. (Harris Cat.). Fabr. Syst. antl. p. 111, 2 (Chrysops.) Wied. Dipt. Exot. I, 94, 56. Auss. Zweifl. I, 186, 113. Walker, List, etc. I, 191, and V, 148 (Dichelacera).
- ferrugineus Pal.—U. States.—Pal. Beauv. Ins. Dipt. tab. iii, fig. 2, p. 221.
- flavipes Wied. Labrador (Wied); N. Scotia (Walk.). Wied. Auss. Zweifl. I, 137, 41. Walker, List, etc. I, 156 (doubtful), and V, 177.
- flavus Macq.—U. States.—Macq. Hist. Nat. Dipt. I, 200, 13. Guérin et Percheron, Genera, etc. Dipt. tab. iii. Walker, List, etc. V, 185.
- frontalis Walk.—Nova Scotia.—Walker, List, etc. I, 172.
- fulcifrons Macq. Baltimore. Macq. Dipt. Exot. 5e Suppl. p. 33, 127. Mém. de Lille, 1855.
- fulvescens Walk.—Massachusetts.—Walker, List, etc. I, 171. fulvofrater Walk.—Illinois.—Walker, List, etc. I, 181.
- fumipennis Wied. Savannah. Wied. Auss. Zweifl. I, 119, 11. Walker, List, etc. I, 149, and V, 178.
- fusconervosus Macq. ——Florida (Walk.); patria ignota (Macq.).— Macq. Dipt. Exot. I, 147, 52. Mém. de Lille, 1838, 2e part. p. 151, 52. Walker, List, etc. I, 149.
- fuscopunctatus Macq.—Georgia.—Macq. Dipt. Exot. 4e Suppl. p. 34, 108. Mém. de Lille, 1849, p. 338.
- giganteus Degeer.—vid. T. calens.
- gracilis Wied.——Savannah (Wied.); N. Scotia (Walk.).——Wied. Auss. Zweifl. I, 156, 71. Walker, List, etc. I, 174, and V, 186.
- hirtioculatus Macq. Baltimore. Macq. Dipt. Exot. 5e Suppl. 33, 128. Mém. de Lille, 1855.
- imitans Walk.—Georgia.—Walker, List, etc. I, 146. incisus Walk.—Cape Breton.—Walker, Dipt. Saund. I, 26.
- intermedius Walk.——Huds. Bay.——Walker, List, etc. I, 173.
- lasiophthalmus Macq.—Carolina.—Macq. Dipt. Exot. I, 1, 143, 45. Mém. de Lille, 1838, 2e part. p. 147. Walker, List, etc. V, 179.
- leucomelas Walk.—Georgia.—Walker, List, etc. I, 175.
- limbatus Pal. Beauv.—N. America.—(Syu. to Tab. ruficornis, according to Wiedemann.) Pal. Beav. Ins. Dipt. tab. i, fig. 2, p. 54.
- lineatus Fab. --- N. America (Fab.); Georgia (Walk.); Mass. (Harris Cat.).—Fab. Spec. Ins. II, 455, 4. Entom. System. IV, 363, 5. Syst. antl. p. 94, 3. Wied. Dipt. Exot. I, 63, 3. Auss. Zweifl. I, 115, 4. Walker, List, etc. I, 146, and V, 180.
- lineola Fab.—N. America (Fab.); Mass. (Harris Cat.); Florida (Walk.). ----Fab. Ent. Syst. IV, 369, 33. Syst. antl. p. 102, 41. Coqueb. Illustr. Icon. p. 112, tab. xxv, fig. 6. Macq. Dipt. Exot. I, 1, 146, 49. Wied. Dipt. Exot. I, S1, 36. Auss. Zweifl. I, 170, 89. Harris, Ins. N. England, p. 406. Walker, List, etc. I, 182, and V, 184.
- lucidulus Walk.—Jamaica.—Walker, List, etc. I, 188. longiappendiculatus Macq.—Honduras.—Macq. Dipt. Exot. 5e Supp. p. 32, 125. Mém. de Lille, 1855.

22 Tabanida.

as synonyms.

lugubris Macq. — Carolina. — Macq. Dipt. Exot. I, 1, 145, 48. Mém de Lille, 1838, 2e part. p. 149. Walker, List, etc. I, 174(?) and V, 176.

marginalis Fab.—N. America (Wied.); N. Scotia (Walk.).—Fab. Syst. antl. p. 99, 31. Wied. Dipt. Exot. p. 80, 34. Auss. Zweifl. I, 166, 84. Walker, List, etc. I, 174, and V, 180.

melanocerus Wied. — Kentucky (Wied.); Huds. Bay. (Walk.). — Wied. Auss. Zweifl. I, 122, 16. Walker, List, etc. I, 157, and V, 182.

- mexicanus Lin. Mexico (?) South America (Fab.). Lin. Syst. II, 1000, 10. Fabr. Sp. Ins. II, 457, 16. Ent. Syst. IV, 367, 22. Syst. antl. p. 98, 25. Wied. Dipt. Exot. I, 76, 29. Auss. Zwiefl. I, 147, 58. Macq. Dipt. Exot. I, 1, 143, 43. Mém. de Lille, 1838, 2e part. p. 147. Walker, List, etc. V, 215.
  N. B. Fabricius quotes his own Tab. punctatus (Ent. Syst. p. 4, 368, 25); Tab. inanis (Ent. Syst. p. 4, 368, 26), and Tab. olivaceus Degeer,
- molestus Say.—Kentucky (Wied.); Missouri (Say).—Say, J. Acad. Phil. III, 31, 1. Wied. Auss. Zweifl. I, 125, 21. Walker, List, etc. I, 149, V, 186.

mutatus Walk.—U. States.—Walker, Dipt. Saund. I, 23.

nanus Macq. ——Texas. ——Macq. Dipt. Exot. Suppl. I, 42, 88. Mém. de Lille, 1838, 2e part. p. 149. Walker, List, etc. V, 183.

N. B. Tab. nanus Wied. from the Cape, has the priority.

niger Pal. Beauv.——(Syn. of atratus, according to Wied.). Pal. Beauv. Ins. Dipt. tab. i, fig. 1, p. 54.

nebulosus Pal.——U. States.——Pal. Beauv. Ins. Dipt. tab. iii, figs. 4, 5. p. 222.

nigrescens Pal. Beauv. ——North America. ——Pal. Beauv. Ins. Dipt. tab. ii, fig. 2, p. 100. Wied. Auss. Zweifl. I, 116, 6. Walker, List, etc. V, 176.

nigripes Wied.——Georgia.——Wied. Dipt. Exot. 1, 75, 24. Auss. Zweifl. I, 142, 50. Walker, List, etc. V, 177.

nigrovittatus Macq.—Nova Scotia.—Macq. Dipt. Exot. 2e Suppl. 24, 111. Mém. de Lille, 1846, p. 40. Walker, List, etc. V, 178.

notabilis Walk.——N. York; Georgia.——Walker, List, etc. I, 166.

Novæ Scotiæ Macq. —Nova Scotia. —Macq. Dipt. Exot. 2e Suppl. 24, 110. Mém. de Lille, 1846, p. 40. Walker, List, etc. V, 181.

obliquus Walk.——W. Indies.——Walker, Dipt. Saund. I, 28. oculus Walk.——Honduras, Columbia.——Walker, List, etc. I, 187.

pallidus Pal. Beauv.—N. America.—Pal. Beauv. Ins. Dipt. tab. ii, fig. 3, p. 100. Wied. Auss. Zweifl. I, 118, 9. Walker, List, etc.

V, 184.

palpinus Pal.—N. America.—Pal. Beauv. Ins. Dipt. tab. iii, fig. 1,

p. 221.

parallellus Walk.—W. Indies.—Walker, List, etc. I, 187.

parvidentatus Macq.—W. Indies.—Macq. Dipt. Exot. I, 1, 142, 40.
Mém. de Lille, 1838, 2e part. p. 146. Walker, List, etc. V, 189.

patulus Walk.—Georgia.—Walker, List, etc. I, 175.

plumbeus Drury.——(Quoted by Wied. as synon. of *ruficornis* Fab.)
Drury, Ins. I, tab. xliv. fig. 2.

- proximus Walk.——Florida.——Walker, List, etc. I, 147. pumilus Macq.——Carolina.——Macq. Dipt. Exot. I, 1, 146, 51. Mém. de Lille, 1831, 2e part. p. 150. Walker, List, etc. V, 177.
- punctipennis Macq. --- Philadelphia. --- Macq. Dipt. Exot. 2e Suppl. 23, 108. Mém. de Lille, 1846, p. 39. Walker, List, etc. V, 179, and 187.
  - N. B. There is another Tab. punctipennis Macq. from Brazil.
- quinquelineatus Macq. Georgia. Macq. Hist. Nat. Dipt. I, 200, 11. Walker, List, etc. V, 187.
- quinquevittatus Wied. Mexico. Wied. Dipt. Exot. I, 84, 39. Auss. Zweifl. I, 173, 93. Walker, List, etc. V, 188.
- recedens Walk .--- Florida .--- Walker, List, etc. I, 147.
  - N. B.—There is another Tab. recedens Walk. in List, etc. V, 201, from the west coast of America.
- Reinwardtii Wied.—Penna. (Wied.); Huds. Bay (Walk.).—Wied. Auss. Zweifl. I, 130, 30. Walker, List, etc. I, 165; V, 187.
- ruber Macq. Mexico. Macq. Dipt. Exot. Suppl. I, 42, 87. Lille, 1844, p. 170. Walker, List, etc. V, 188.
- ruficeps Macq. --- Baltimore. --- Macq. Dipt. Exot. 5e Suppl. p. 35, 130. Mém. de Lille, 1855.
- ruficornis Fab.—N. America (Wied.); Florida, Massachusetts (Walk.). ---Fabr. Syst. Ent. p. 789, 8. Ent. Syst. p. 365, 14. Syst. antl. p. 96, 14. Wied. Dipt. Exot. I, 62, 1. Auss. Zweifl. I, 112, 1. Walker, List, etc. I, 146; V, 181.
  - N. B. Tab. americanus Först. and T. limbatus Pal. and T. plumbeus Dr. are synonyms of this species (Wied.).
- rufiventris Macq. Cuba, Jamaica. Macq. Dipt. Exot. I, 1, 141, 39. Mém. de Lille, 1838, 2e part. p. 145. Walker, List, etc. I, 180; V, 189. N. B. The name must be changed; there is already a Tab. rufiventris Fab. from East Indies, and another T. rufiventris Macq. from South America.
- rufofrater Walk.——Georgia.——Walk. Dipt. Saunders, I, 26. rufus Pal. Beauv.——N. America (Pal.); Georgia (Walk.).——Pal. Beauv. Ins. Dipt. tab. ii, fig. 1, p. 100. Wied. Auss. Zweifl. I, 117, 8. Walker, List, etc. I, 149; V, 183.
- scapularis Macq. Mexico. Macq. Dipt. Exot. 2e Suppl. 15, 9. Mém. de Lille, 1846, p. 31 (Dichelacera). Walker, List, etc. V, 148 (Dichelacera).
- scitus Walk .-- Georgia .-- Walker, List, etc. I, 181.
- scutellaris Walk.—N. America.—Walker, Dipt. Saund. I, 27. simulans Walk.—N. Scotia.—Walker, List, etc. I, 182.
- stigma Fab. --- Brazil, St. Thomas, W. Indies (Fab.). --- Fab. Syst. antl. p. 104, 50. Wied. Dipt. Exot. I, 92, 53. Auss. Zweifl. I, 180, 104. Walker, List, etc. V, 202.
- stygius Say.—Arkansas (Say); Florida (Walk.).—Say, J. Acad. Phil. III, 33, 3. Wied. Auss. Zweifl. I, 131, 31. Walker, List, etc. I, 149, and V, 187.
- sulphureus Pal.—U. States, St. Domingo.—Palisot Beav. Ins. p. 222. Dipt. pl. iii, fig. 3.

```
tarandi Walk.---Newfoundland.----Walker, List, etc. I, 156.
```

Terræ Novæ Macq. —Newfoundland. —Macq. Dipt. Exot. 4e Suppl. p. 35, 109. Mém. de Lille, 1849, p. 339.

tinctus Walk.——W. Indies (?)——Walker, Dipt. Sannd. I, 29. trijunctus Walk.——Florida.——Walker, List, etc. V, 182.

triligatus Walk.——Arctic America.——Walker, List, etc. V, 183.

trimaculatus Pal.—South America (Wied.); Carolina (Macq.).— Pal. Beauv. Ins. Dipt. tab. i, fig. 5, p. 56. Wied. Anss. Zweifl. I, 137, 40. Macq. Dipt. Exot. I, 1, 142, 42. Mém. de Lille, 1838, 2e part. p. 146. Walker, List, etc. V, 202.

N. B. Tab. trimaculatus Wied. (Auss. Zw. I, 132, 33; America?) is a different species.

trispilus Wied.—Kentucky (Wied.); Georgia (Walk.).—Wied. Auss. Zweifl. I, 150, 62. Walker, List, etc. I, 174; V, 177.

turbidus Wied. -- Kentucky (Wied.); Illinois (Walk.). -- Wied. Auss. Zweifl. I, 124, 20. Walker, List, etc. I, 149; V, 186.

unicolor Macq. — Carolina. — Macq. Dipt. Exot. 2e Suppl. 22, 107. Mem. de Lille, 1846, p. 38. Walker, List, etc. V, 185.

validus Wied. ——N. America (Wied.); Georgia (Walk.). ——Wied. Auss. Zweifl. I, 113, 2. Walker, List, etc. I, 175, and V, 180.

variegatus Fab.——N. America (Fab.); Ohio, Illinois (Walk.).——Fab. Syst. antl. p. 95, 10. Wied. Dipt. Exot. I, 67, 11. Auss. Zweifl. I, 120, 13. Walker, List, etc. I, 149; V, 186.

vicarius Walk .-- N. America, Massachusetts, Honduras .-- Walker, List, etc. I, 187.

vicinus Macq.—Carolina (Macq.); Huds. Bay (Walk.).—Macq. Dipt. Exot. I, 143, 44. Mém. de Lille, 1838, 2e part. p. 147. Walker, List, etc. I, 172; V, 178.

zonalis Kirby. ——America Borealis. ——Kirby, Fauna Boreali-Americ. IV, 314, 2. Walker, List, etc. I, 157.

### Diabasis Macq.

ataenia Macq. -- Carolina, Brazil. -- Macq. Dipt. Exot. I, 1, 152, 3. Mém. de Lille, 1838, 2e part. p. 156. Walker, List, etc. V, 271.

### Chrysops Meig.

approximans Walk.——Florida.——Walker, List, etc. I, 198. areolatus Walk.——New York.——Walker, List, etc. I, 197.

ater Macq. ——Newfoundland. ——Macq. Dipt. Exot. 4e Suppl. p. 40, 18. Mém. de Lille, 1849, p. 344.

canifrons Walk. --- Florida. --- Walker, List, etc. I, 197.

carbonarius Walk.—Nova Scotia.—Walker, List, etc. I, 203.

confusus Harris. -- Cat. Ins. Mass.

convergens Walk. - Honduras, West Indies. - Walker, List, etc. I, 198.

costatus Fab. ——South America (Fab.); Jamaica (Walk.); Cuba (Macq.) ——Fab. Ent. Syst. IV, 373, 45 (Tabanus). Syst. antl. p. 112, 8. Palisot, Ins. Dipt. p. 223, tab. iii, fig. 7. Wied. Dipt. Exot. I, 104, 4.

25

- Auss. Zweifl. I, 198, 5. Macq. Dipt. Exot. I, 1, 160, 8. Mém. de Lille, 1838, 2e part. p. 164. Walker, List, etc. I, 199, and V, 288.
- divisus Walk .--- Florida .--- Walker, List, etc. I, 204.
- excitans Walk. --- Cape Breton. --- Walker, Dipt. Saund. I, 72.
- fascipennis Macq. Philad. (Macq.); Georgia (Walk.) Macq. Hist. Nat. Dipt. I, 216, 7. Walker, List, etc. I, 197; V, 283.
- flavidus Wied. ——Savannah (Wied.). ——Wied. Dipt. Exot. I, 105, 5. Auss. Zweifl. I, 199, 7. Walker, List, etc. V, 283.
- frontalis Macq.—West Indies.—Macq. Dipt. Exot. I, 1, 160, 7. de Lille, 1838, 2e part. p. 164. Walker, List, etc. V, 284.
- fuliginosus Wied.—N. America (Wied.); Florida (Walk.).—Wied. Dipt. Exot. I, 109, 11. Auss. Zweifl. I, 210, 23. Walker, List, etc. I, 204, and V, 282.
- furcatus Walk.—Huds. Bay.—Walker, List, etc. I, 199.
- geminatus Wied. —- Mexico (Macq.); patria ignota (Wied.) —- Wied. Auss. Zweifl. I, 205, 16. Macq. Dipt. Exot. 4e Suppl. p. 39. Mém. de Lille, 1849, p. 343.
- inornatus Walk.—West Indies, Brazil.—Walker, List, etc. I, 198. lateralis Wied.—Honduras (Welk.); patria ignota (Wied.).—Wied. Auss. Zweifl. I, 209, 21. Walker, List, etc. I, 200; V, 288.
- lugens Wied. --- Georgia. --- Wied. Dipt. Exot. I, 109, 12. Auss. Zweifl. I, 212, 26. Walker, List, etc. V, 282.
- moerens Walk. --- Nova Scotia. --- Walker, List, etc. I, 201.
- niger Macq.—N. America.—Macq. Dipt. Exot. I, 1,161, 10. Mém. de Lille, 1838, 2e part. p. 165. Walker, List, etc. I, 203 (description); V, 282.
- obsoletus Wied.—N. America; Huds. Bay (Walk.).—Wied. Dipt. Exot. I, 108, 10. Auss. Zweifl. I, 211, 25. Walker, List, etc. I, 200; V, 283.
- plangens Wied. -- Georgia. -- Wied. Auss. Zweifl. I, 210, 22. Walker, List, etc. V, 282.
- provocans Walk.—Cape Breton.—Walker, Dipt. Saund. I, 73.
- quadrivittatus Say. Rocky Mountains. Say, J. Acad. Phil. III, 1822, 33, 1. Wied. Auss. Zweifl. I, 200, 9. Walker, List, etc. V, 283.
- sepulchralis Zett.—Europe (autor.); Huds. Bay (Walk.).—Zetterstedt, etc. Kirby, Fauna Bor. Amer. Ins. p. 314, 1. Walker, List, etc. I, 202, and V, 279.
- trinotatus Macq. —— Philadelphia. —— Macq. Dipt. Exot. I, 1, 161, 9. Mém. de Lille, 1838, 2e part. p. 165. Walker, List, etc. V, 282.
- univittatus Macq. Baltimore. Macq. Dipt. Exot. 5e Suppl. p. 36, Mém. de Lille, 1855.
- vittatus Wied.—N. America (Wied.); Mass. (Harris Cat.); Nova Scotia (Walk.).——Wied. Dipt. Exot. I, 106, 7. Auss. Zweifl. I, 200, 8. Harris, Ins. N. Engl. p. 406. Walker, List, etc. I, 196, and V, 284. Macq. Dipt. Exot. 5e Suppl. p. 37, 22. Mem. de Lille, 1855.

#### Hæmatopota Meig.

punctulata Macq. — Carolina. — Macq. Dipt. Exot. I, 1, 163, 2. Mém. de Lille, 1838, 2e part. p. 167. Walker, List, etc. V, 295.

#### Acanthomera Wied.

- crasipalpis Macq.—Guatimala.—Macq. Dipt. Exot. 2e Suppl. p. 27, 5, tab. i, fig. 3. Mém. de Lille, 1846. Walker, List, etc. V, 302.
- seticornis Wied. Brazil (Wied.); Guatimala (Macq.). Wied. Auss.
   Zweifl. I, 108, I. Macq. Dipt. Exot. I, 1, 168, 3, tab. xx, fig. 1, and
   2e Suppl. 27. Mém. de Lille, 1838, 2e part. p. 172, and 1846, p. 43.
- tabanina Thunb.—W. Indies.—Thunberg Act. Soc. Gothob. 1819, p. 111, 7, tab. vii, fig. 2 (Pantophthalmus). Wied. Auss. Zweifl. I, 110, 4. Walker, List, etc. V, 300.

### Fam. V. ACROCERIDÆ.

#### Pterodontia Gray.

- analis Westw. Georgia. Westw. Trans. Ent. Soc. V, 97. Walker,
  List, etc. III, 513, and VI, 347.
  N. B. There is another Pt. analis Macq. from New Granada.
- flavipes Gray.——Georgia.——Gray, in Griffith's Anim. Kingd. pl. exxviii, fig. 3. Westwood, Trans. Ent. Soc. V, 96. Walker, List, etc. III, 513, and VI, 346.

### Acrocera Meig.

- bulla Westw.—New York.—Westw. Trans. Ent. Soc. V, 98. Walker, List, etc. III, 512; VI, 351.
- fasciata Wied. Georgia. Wied. Auss. Zweifl. II, 16, 2. Erichs. Entomogr. I, 166, 4. Walker, List, etc. VI, 350.
- fasciata Harris. -- Cat. Ins. Mass. (Henops).
- fumipennis Westw. —— Georgia. —— Westw. Trans. Ent. Soc. V, 98. Walker, List, etc. III, 512; VI. 352.
- nigrina Westw.—Georgia.—Westw. Trans. Ent. Soc. V, 98. Walker, List, etc. III, 512; VI, 351.
- obesa Harris. -- Cat. Ins. Mass.
- subfasciata Westw.——New York.——Westw. Trans. etc. V, 98. Walker, List, etc. III, 512; VI, 351.
- unguiculata Westw.—Georgia.—Westw. Trans. etc. V, 98. Walker, List, etc. III, 512; VI, 351.

#### Henops Illig.

dispar Macq.—Baltimore.—Macq. Dipt. Exot. 5e Suppl. 67,1. Mém. de Lille, 1855, tab. ii, fig. 12.

### Cyrtus Latr.

magnus Walk .-- Georgia .-- Walker, List, etc. III, 511.

#### Ocnæa Erichs.

micans Erichs. ——Mexico. ——Erichs. Entomogr. I, 155, 1. Walker, List, etc. VI, 343.

### Fam. VI. MIDASII.

### Midas Fab.

- basalis Westw. Mexico. Westwood, Arcana Entom. I, 53, 25. Walker, List, etc. VI, 361.
- clavatus Drury.—N. America (aut.); S. America (Fab.).—Fab. Syst. Ent. p. 756, 1 (Bibio illucens, according to Westwood). Olivier, Encyclop. Méth. VIII, 83, 1 (M. filatus). Dumeril, Consid. Gén. sur la Classe des Insectes, tab. xlviii, fig. 8 (M. filatus). Latreille, Hist. Nat. Crust. et Ins. xiv. 338 (M. filata). Wied. Dipt. Exot. I, 116, 2. Auss. Zweifl. I, 240, 3, tab. ii, fig. 3 (M. filata). Monogr. Mid. tab. liii, fig. 8. Drury, III. I, tab. xliv, fig. 1, and Vol. II, App. Westwood, Arc. I, 51, 14. Walker, List, etc. I, 228; VI, 361. Degeer, Ins. VI, 204, 2 (Nemotelus asiloides). Fabr. Mant. II, 328, 1 (Bibio filata). Ent. Syst. IV, 251, 1. Syst. antl. p. 60, 1 (M. filata).
- crassipes Westw.—North America (?)—Westwood, Arcana, I, 51, 9,
- pl. xiii, fig. 3. Walker, List, etc. VI, 359. filatus Wied.——Vid. clavatus Drury.
- fulvifrons Illig.—Georgia.—Illig. Magaz. f. Insectenkunde, I, 206, 32.
  Wied. Nova Acta Nat. Curios. XV. (Monogr. Midar.), pl. xlvii, tab.
  liii, fig. 13. Auss. Zweifl. II, 629, 33. Westwood, Arcana, I, 52, 23.
  Walker, List, etc. VI, 359.
- incisus Macq.—Carolina.—Macq. Dipt. Exot. I, 2, 11, 1, tab. i, fig. 1. Mém. de Lille, 1838, 3e part. p. 127. Westwood, Arcana, I, 53, 27. Walker, List, etc. VI, 360.
- interruptus Wied. Mexico. Wiedem. Nova Acta Nat. Cur. XV. (Monogr. Midar.), 46, tab. liii, fig. 12. Auss. Zweifl. II, 628, 31. Westwood, Arcana, I, 52, 20. Walker, List, etc. VI, 361.
- iopterus Wied.—South America (Wied.); Florida; Mass. (Walk.).—Wied. Auss. Zweifl. I, 241, 4. Meig. Hist. Nat. Dipt. I, 274, 4. Walker, List, etc. I, 228; VI, 361. Westwood, Arcana, etc. quotes it among the varieties of *M. brevicornis* Wied. from Brazil.
- maculiventris Westw.——Georgia.——Westwood, Lond. and Edinb. Phil. Mag. 1835. Arcana, I, 53, 26, tab. xiii, fig. 5. Walker, List, etc. VI, 360.
- pachygaster Westw.—Georgia.—Westwood, Arcana I, 53, 24, tab. xiii, fig. 4. Walker, I, 228; VI, 360.
- parvulus Westw.——Georgia (Westw.); Florida (Walk.).——Westwood, Arcana, I, 53, 28, tab. xiii, fig. 6. Walker, List, etc. I, 228; VI, 360.
- rubidapex Wied. Mexico. Wiedem. Nova Acta Nat. Cur. (Monogr. Midar.) XV, 40, 2, tab. lii, fig. 2. Auss. Zweifl. II, 626, 27. Westwood, Areana, I, 51, 4. Walker, List, etc. VI, 361.
- senilis Westw.—Mexico.—Westwood, Arc. Ent. I, 52, 21. Walker, List, etc. VI, 361.
- tibialis Wied. —— Baltimore. —— Wied. Nova Acta, etc. XV (Monogr. Mydar.), tab. liii, fig. 6. Auss. Zweifl. II, 627, 30. Westwood, Arcana, I, 51, 11. Walker, List, etc. Vl, 359.
- tricolor Wied. Cuba. Wied. Nova Acta, etc. XV (Monogr. Mydar.),

- 42, tab. liii, fig. 5. Auss. Zweifl. II, 627, 29. Westwood, Arcana, I, 51, 10. Walker, List, etc. VI, 362.
- vittatus Macq.——Mexico.——Macq. Dipt. Exot. 4e Suppl. p. 60, 9. Mém. de Lille, 1849, p. 365, tab. iv, fig. 6.

# Fam. VII. ASILIDÆ.

#### Ceraturgus Wied.

- aurulentus Fab. N. York (Fab.). Fab. Syst. antl. p. 166, 11 (Dasypogon).
   Wied. Anal. Ent. p. 12. Dipt. Exot. I, 228, 26. Auss. Zweifl. I, 414, 1, tab. v, fig. 5. Macq. Hist. Nat. Dipt. I, 289, 1, tab. vii, fig. 4 (head).
   Walker, List, etc. VI, 378.
- fasciatus Walk .-- New York .-- Walker, List, etc. II, 367.
- niger Macq.—Amer. Borealis (not Mexico, as Walker has it). Macq. Dipt. Exot. I, 2, 25, tab. ii, fig. 1. Mém. de Lille, 1838, 3e part. p. 141. Walker, List, etc. VI, 378.
- rufipennis Macq. Mexico. Macq. Dipt. Exot. 2e Suppl. 32, 2. Mém. de Lille, 1846, p. 48. Walker, List, etc. VI, 378.

#### Dioctria Fab.

- Albius Walk. —New York. —Walker, List, etc. II, 301.
- octopunctata Say.——N. America (Say); Mass. (Harris Cat.).——Say, J. Acad. Phil. III, 49, 1. Wied. Auss. Zweifl. I, 365, 3. Walker, List, etc. VI, 387.

#### Dasypogon Fab.

- abdominalis Say.——Penna.——Say, J. Acad. Phil. III, 50, 2. Wied. Auss. Zweifl. I, 412, 75. Walker, List, etc. VI, 426.
- Aeacus Wied.——N. W. Territory.——Say, Long's Exped. App. 375 (D. abdominalis, distinct from the former). Wied. Auss. Zweifl. I, 390, 37. Walker, List, etc. VI, 425.
- albiceps Macq. Texas. Macq. Dipt. Exot. 1er Suppl. 69, 51. Mem. de Lille, 1844, p. 197. Walker, List, etc. VI, 426.
- Amastris Walk.——Georgia.——Walker, List, etc. II, 362; VI, 496 (Discocephala); VI, 421 (Dasypogon).
- angustus Macq. ——St. Domingo. ——Macq. Dipt. Exot. 3e Suppl. 20, 59, tab. i, fig. 11. Mém. de Lille, 1847, p. 58. Walker, List, etc. VI, 429.
- anthracinus Lœw.—Mexico.—Lœw. Bemerk über die Fam. der Asiliden, p. 12 (Lastaurus).
- argenteus Say.—Penna.; Maryland (Say); Nova Scotia (Walk.).——Say, J. Acad. Phil. III, 51, 4. Wied. Auss. Zweifl. I, 409, 69. Walker, List, etc. II, 354 (?) and VI, 425.
- basalis Walk.—U. States.—Walker, Dipt. Saund. II, 95.
- bimacula Walk.—N. America.—Walker, Dipt. Saund. II, 102, tab. iv, fig. 1 (Euarmostus, n. gen.).
- brunneus Fab. ——Philadelphia (Macq.); Cayenne (Fab.). ——Fab. Mant. Ins. II, 359, 20 (Asilus). Entom. Syst. IV, 382, 28 (id.). Syst. antl.

 $^{29}$ ASILIDÆ.

- p 165, 9. Wied. Dipt. Exot. I, 219, 9. Auss. Zweifl. I, 382, 26. Macq. Dipt. Exot. I, 2, 34, 4. Walker, List, etc. VI, 421. Californiæ Walk.—California.—Walker, List, etc. II, 322.
- candidus Macq. Mexico. Macq. Dipt. Exot. 1er Suppl. 67, 48. Mém. de Lille, 1844, p. 195.
- cepphicus Say.---Mexico.----Say, J. Acad. Phil. VI, 158. Walker, List, etc. VI, 503.
- cruciatus Say. --- Arkansas. --- Say, J. Acad. Phil. III, 52, 6. Wied. Auss. Zweifl. I, 381, 24. Walker, List, etc. VI, 426.
- dimidiatus Macq.—Mexico.—Macq. Dipt. Exot. 2e Suppl. 35, 56. Mém. de Lille, 1846, p. 51. Walker, List, etc. VI, 428.
- Duillius Walk.—Honduras.—Walker, List, etc. II, 340.
- Falto Walk.—Nova Scotia.—Walker, List, etc. II, 355. fasciventris Macq.—Mexico.—Macq. Dipt. Exot. 4e Suppl. p. 69, 75. Mém. de Lille, 1849, p. 373, tab. vi, fig. 13.
- guttula Wied.—Georgia (Wied.); Ohio, New York (Walk.).—Wied. Dipt. Exot. I, 228, 27. Auss. Zweifl. I, 411, 74. Walker, II, 355 (description given, the identification being doubtful), VI, 424.
- Herennius Walk.——Cincinnati.——Walker, List, etc. II, 339.
- lineatus Fab.——W. Indies.——Fab. Spec. Ins. II, 465, 28. Entom. Syst. IV, 386, 47 (Asilus). Syst. antl. p. 167, 13. Wied. Dipt. Exot. I, 221, 12. Auss. Zweifl. I, 385, 29. Walker, List, etc. VI, 428.

- Lutatius Walker.—Nova Scotia.—Walker, List, etc. II, 357.

  Macerinus Walk.—Trenton Falls.—Walker, List, etc. II, 356.

  magnificus Walk.—Mexico.—Walker, List, etc. VI, 427.

  mexicanus Macq.—Mexico.—Macq. Dipt. Exot. 1er Suppl. 68, 49, pl. vi, fig. 10. Mém. de Lille, 1844, p. 196. Walker, List, etc. VI, 428. nigripennis Macq. — Mexico. — Macq. Dipt. Exot. 2e Suppl. 34, 55,
- tab. i, fig. 6. Mém. de Lille, 1846, p. 50. Walker, List, etc. VI, 428. nigritarsis Macq. — Mexico. — Macq. Dipt. Exot. 1er Suppl. 68, 50.
- Mém. de Lille, 1844, p. 196. Walker, List, etc. VI, 428. nitidus Wied. — Mexico. — Wied. Auss. Zweifl. II, 643, 60.
- List, etc. VI, 496 (Discocephala), and VI, 503 (Dasypogon). politus Say.——Pennsylvania, Maryland (Say).——Say, J. Acad. Phil.
- III, 52, 5. Wied. Auss. Zweifl. I, 405, 63. Walker, List, etc. VI, 421. rufescens Macq. ——Philadelphia. ——Macq. Hist. Nat. Dipt. I, 295, 8. Walker, List, etc. VI, 426.
- rufiventris Macq. Carolina, Brazil (Macq.); Florida, Mass. (Walk.). -Macq. Dipt. Exot. I, 2, 50, 1, tab. iv, fig. 2 (Discocephala). Walker, List, etc. II, 362 (Dasypogon Aeta), vid. Walk. l. c. VI, 495 (Discocephala), and 503 (Dasypogon).
- sexfasciatus Say. --- Missouri (Say); Nova Scotia (Walk.). --- Say, J. Acad. Phil. III, 50, 1. Wied. Auss. Zweifl. I, 408, 68. Walker, List, etc. II, 354 (?), and VI, 424.
- subulatus Wied. Georgia. Wied. Auss. Zweifl. I, 375, 14. Walker, List, etc. I, 311, and VI, 422.
- teutonus Linn. Europa (autor.); Florida (Macq.). Linn. Fabr. Meigen, etc. Macq. Dipt. Exot. 4e Suppl. p. 69. Mcm. de Lille, 1849, p. 373.

trifasciatus Say.——Pennsylvania, Maryland.——Say, J. Acad. Phil. III, 51, 3. Wied. Auss. Zweifl. I, 405, 64. Walker, List, etc. VI, 424. tristis Walk.——U. States.——Walker, Dipt. Saund. II, 93.

#### Megapoda Macq.

cyaneiventris Macq.—Mexico.—Macq. Dipt. Exot. 1er Suppl. 71, 3, tab. vii, fig. 12. Mém. de Lille, 1844, p. 199. Walker, List, etc. VII, 508.

### Lampria Macq.

mexicana Macq. —— Mexico. —— Macq. Dipt. Exot. 2e Suppl. 37, 3. Mém. de Lille, 1846, p. 53. Walker, List, etc. VII, 510.

# Laphria Fabr.

Aeatus Walk.——Nova Scotia.——Huds. Bay.——Walker, List of Dipt. II, 381.

affinis Macq.—Baltimore.—Macq. Dipt. Exot. 5e Suppl. p. 54, 45. Mém. de Lille, 1855.

Alcanor Walk. —- Massachusetts. —- Walker, List of Dipt. II, 383.

Amandus Walk.—Guatimala.—Walker, List, etc. II, 373.

analis Mac.—Boreal America.—Macq. Dipt. Exot. I, 2, 68, 15. Mém. de Lille, 1838, 3e part. p. 184. Walker, List, etc. VII, 525.

Antæa Walk.—British North America (or Florida?)—Walker, List, etc. II, 379, and VII, 527 (L. saniosa Say?)

atribarbis Say .-- Harris, Ins. Mass.

bilineata Walk.——Huds. Bay.——Walker, List, etc. IV, 1156 (Addenda).

dersata Say.—Penna.—Say, Amer. Entom. I, tab. vi. Wied. Auss. Zweifl. I, 506, 12. Walker, List, etc. VII, 524.

Echemon Walk. --- Ohio. --- Walker, List, etc. II, 386.

flavescens Macq.——Pyrénées (Europe); Carolina.——Macq. Dipt. Exot. I, 2, 69, 16. Mém. de Lille, 1838, 3e part. p. 185.

avicollis Say.—N. W. Territory (Say); Mass. (Harris Cat.).—Say, Long's Exped. App. p. 374, 2. Wied. Auss. Zweifl. I, 519, 34. Walker, List, etc. VII, 524.

flavibarbis Harris.——New England.——Harris, Ins. N. Engl. etc. p. 484 (described only in a few words).

flavipila Macq.—U. States.—Macq. Hist. Nat. Dipt. I, 282, 8. Walker, List, etc. VII, 525.

fulvithorax.—vid. thoracica.

fulvicauda Say. ---- vid. pyrrhacra Wied.

georgina Wied. —Georgia. —Wied. Dipt. Exot. I, 235, 6. Auss. Zw. I, 506, 13. Walker, List, etc. VII, 526.

glabrata Say.——U. States (Say); Mass. (Harris Cat.).——Say, J. Acad. Phil. III, 53, 2. Walker, List, etc. VII, 527.

lasipes Wied.——Kentucky.——Wied. Auss. Zweifl. I, 502, 6. Walker, List, etc. II. 383, and VII, 526.

lata Macq. — Texas. — Macq. Dipt. Exot. 4e Suppl. p. 75. Mém. de
Lille, 1849, p. 379. Dipt. Exot. 1er Suppl. 78, 20 (Mallophora analis).
Mém. de Lille, 1844, p. 206 (id.). Walker, List, etc. VII, 576.

- megacera Macq. ——Philadelphia. ——Macq. Hist. Nat. Dipt. I, 284, 18. Walker, List, etc. VII, 527.
- melanopogon Wied.—Kentucky.—Wied. Auss. Zweifl. I, 520, 36. Walker, List, etc. VII, 524.
- melanogaster Wied.—Georgia (Wied.); Mexico.—Wied. Dipt. Exot. I, 236, 7. Auss. Zweifl. I, 507, 14. Macq. Dipt. Exot. 1er Suppl. 75, 30. Mem. de Lille, 1844, p. 203. Walker, List, etc. VII, 528.
- Olbus Walk. Guatimala (Walk.); Honduras (Macq.). Walker, List, etc. II, 375. Macq. Dipt. Exot. 5e Suppl. p. 53. Mém. de Lille, 1855, tab. ii, fig. 3.
- posticata Say.—N. W. Territory (Say); Mass. (Harris Cat.); Huds. Bay, Nova Scotia, Maine (Walk.); Carolina (Macq.).—Say, Long's Exp. App. p. 374, 1. Wied. Auss. Zweifl. I, 518, 32. Macq. Dipt. Exot. I, 2, 69, 17. Mém. de Lille, 1838, 3e part. p. 185. Walker, List, etc. II, 382, and VII, 525.
- pygmaea Macq. —— Georgia. —— Macq. Hist. Nat. Dipt. I, 287, 30. Walker, List, etc. VII, 528.
- pyrrhacra Wied. Missouri (Say); Mass. (Harris Cat.); Georgia and S. America (Wied.). Say, J. Acad. Phil. III, 53, 1. Amer. Ent. I, tab. vi, (L. fulvicauda). Wied. Auss. Zweifl. I, 517, 31. Walker, List, etc. VII, 527, 60 (L. fulvicauda), and 526, 56 (L. pyrrhacra).
- rubirventris Macq. ——Philadelphia. ——Macq. Hist. Nat. Dipt. I, 284, 19. Walker, List, etc. VII, 527.
- Sacrator Walk.—Nova Scotia.—Walker, List, etc. II, 382.
- Sadales Walk.—New York.—Walker, List, etc. II, 378.
- saffrana Fab. Georgia (W.); Carolina (Fab.); Mass. (?Harris Cat.).
  ——Fab. Syst. antl. p. 160, 18. Wied. Dipt. Exot. I, 234, 4. Auss.
  Zweifl. I, 504, 9. Walker, List, etc. II, 375, and VII, 526.
- saniosa Say.——Indiana.——Say, J. Acad. Phil. VI, 158.
- sericea Say.—Arkansas (Say); Ohio, Canada, Nova Scotia (Walk.); Mass. (Harris Cat.)—Say, J. Acad. Phil. III, 74, 4. Amer. Ent. I, tab. vi. Wied. Auss. Zweifl. I, 508, 16. Walker, List, etc. II, 382, and VII, 526.
- tergissa Say.——Pennsylvania (Say); Georgia (Walk.); Mass. (Harriz Cat.).——Say, J. Acad. Phil. III, 74, 5. Wied. Auss. Zweifl. I, 502, 5. Walker, List, etc. II, 383, and VII, 525.
- Terrae novae Macq. Newfoundland. Macq. Dipt. Exot. I, 2, 69, 18. Mém. de Lille, 1838, 3e part. p. 185. Walker, List, etc. VII, 525.
- thoracica Fab.—N. America (Fab.); Nova Scotia, New York (Walk.);
  Mass. (Harris Cat.); W. Indies (Macq.).—Fab. Syst. antl. p. 158,
  10. Wied. Dipt. Exot. 1, 236, 8. Auss. Zweifl. I, 511, 21. Macq.
  Dipt. Exot. I, 2, 68, 14. Mem. de Lille, 1838, 3e part. p. 184, 14.
  Walker, List, etc. II, 382, and VII, 524.
- xanthocnema Wied.—W. Indies (Macq.); Brazil (Wied.).—Wied. Auss. Zweifl. I, 509, 18. Macq. Dipt. Exot. I, 2, 67, 12. Mém. de Lille, 1838, 3e part. p. 183. Walker, List, etc. VII, 528.

#### Atomosia Macq.

incisuralis Macq. ——Cuba, Ohio. ——Macq. Dipt. Exot. I, 2, 76, 4, tab. vii, fig. 1. Mém. de Lille, 1838, 3e part. p. 192. Walker, List, etc. VII, 567.

- macrocera Say. Penna. (Say). Say, J. Acad. Phil. III, 73, 3 (*Laphria*). Wied. Auss. Zweifl. I, 531, 57 (*Laphria*). Walker, List, etc. VII, 566.
- pusilla Macq. ——N. America. ——Macq. Dipt. Exot. I, 2, 76, 6. Mém. de Lille, 1838, 3e part. p. 192. Walker, List, etc. VII, 566.
- rufipes Macq.—Penna.—Macq. Dipt. Exot. 2e Suppl. 39, 9. Mém. de Lille, 1846, p. 55. Walker, List, etc. VII, 566.
- tibialis Macq. Yucatan, W. Indies. Macq. Dipt. Exot. 1er Suppl. 76, 8. Mém. de Lille, 1844, p. 204. Walker, List, etc. VII, 567.

#### Mallophora Macq.

- Amphinome Walk.—Honduras.—Walker, List, etc. II, 387 (Asilus).

  ardens Macq.—U. States.—Macq. Hist. Nat. Dipt. I, 302, 4. Dipt.

  Exot. I, 2, 89, 12, tab. viii, fig. 2. Mém. de Lille, 1838, 3e part. p. 205, 12. Walker, List, etc. VII, 576.
- bomboides Hoffm.—Georgia (Wied.).—Wied. Dipt. Exot. I, 203, 37 (Asilus). Auss. Zweifl. I, 476, 77 (id.). Macq. Hist. Nat. Dipt. I, 302, 2. Dipt. Exot. I, 2, 89, 11. Mém. de Lille, 1838, 3e part. p. 205. Walker, List, etc. II, 387 (Asilus), and VII, 576.
- clausicella Macq. Virginia. Macq. Dipt. Exot. 4e Suppl. p. 79, 27. Mém. de Lille, 1849, p. 383, tab. vii, fig. 8.
- fulviventris Macq. ——Texas, Mexico. ——Macq. Dipt. Exot. 4e Suppl. p. 77, 24. Mém. de Lille, 1849, p. 381.
- fulvianalis Macq. Mexico. Macq. Dipt. Exot. 4e Suppl. p. 78, 25. Mém. de Lille, 1849, p. 382 (perhaps Q of M. fulviventris, according to Macquart).
- heteroptera Macq.—Philadelphia.—Macq. Dipt. Exot. I, 2, 90, 13, tab. viii, fig. 3. Mém. de Lille, 1838, 3e part. p. 206. Walker, List, etc. VII, 577.
- minuta Macq. —— Philadelphia. —— Macq. Hist. Nat. Dipt. I, 302, 5. Walker, List, etc. VII, 577.
- oreina Wied. —— Georgia. —— Wied. Auss. Zweifl. I, 477, 79 (Asilus). Walker, List, etc. VII, 576.
- pica Macq. Mexico. Macq. Dipt. Exot. 4e Suppl. p. 78, 26. Mém. de Lille, 1849, p. 382.
- scopifera Wied.—Cuba (Macq.); Brazil (Wied.).—Wied. Auss. Zw. I, 478, 83 (Asilus). Macq. Dipt. Exot. I, 2, 89, 10. Mém. de Lille, 1838, 3e part. p. 205. Walker, List, etc. VII, 577.
- robusta Wied. Yucatan (Macq.); South America (Walk.). Wied.
  Auss. Zweifl. I, 478, 81 (Asilus). Macq. Dipt. Exot. 1er Suppl. 78.
  Mém. de Lille, 1844, p. 206. Walker, List, etc. VII, 580.

#### Trupanea Macq.

- Bastardii Macq. ——N. America. ——Macq. Dipt. Exot. I, 2, 104, 30. Mém. de Lille, 1838, 3e part. p. 220. Walker, List, etc. VII, 587.
- Laevinus Walk. Massachusetts. Walker, List, etc. II, 392 (Asilus).
  laphroides Wied. Kentucky. Wied. Auss. Zweifl. I, 483, 88 (Asilus).
  Walker, List, etc. VII. 587.
- perpusilla Walk .--- U. States .--- Walker, Ins. Saund. II. 123.

- quadrata Wied. -- Georgia. -- Wied. Dipt. Exot. I, 201, 34. Auss. Zweifl. I, 485, 90 (Asilus). Walker, List, etc. II, 394, and VII, 587.
- rubiginis Walk. -- N. America. -- Walk. Dipt. Saund. II, 123.
- vertebrata Say. --- Missouri (Say). --- Say, J. Acad. Phil. III, 47, 1 (Asilus). Wied. Auss. Zweifl. I, 485, 91 (id.). Macq. Dipt. Exot. I, 2, 103, 27. Mém. de Lille, 1838, 3e part. p. 219, 27. Walker, List, etc. VII, 587.

#### Erax Scop.

- aestuans Linn. -- N. America (Fab.); Delaware (Walk.); Mass. (Harris Cat.).—Linn. Syst. Nat. II, 1007, 5. Amoen. Acad. VI, 413, 95 (Asilus). Fab. Syst. Ent. IV, 379, 8 (Asilus). Syst. Antl. p. 164, 2 (Dasypogon). Olivier, Encyclop. Méth. I, 264. Wied. Dipt. Exot. I. 200, 32. Auss. Zweifl. I, 467, 63 (Asilus). Macq. Hist. Nat. Dipt. I, 312, 36 (Asilus). Dipt. Exot. I, 2, 115, 19. Mém. de Lille, 1838. 3e part. p. 231, 19. Walker, List, etc. II, 398; VII, 619.
- albibarbis Macq. -- N. America. -- Macq. Dipt. Exot. I, 2, 118, 26.
- Mém. de Lille, 1838, 3e part. p. 234. Walker, List, etc. VII, 618. ambiguus Macq.—Texas, Yucatan.—Macq. Dipt. Exot. 1er Suppl. 84, 34. Mém. de Lille, 1844, p. 212. Walker, List, etc. VII, 620.
- Antiphon Walk. ——Georgia. ——Walker, List, etc. II, 397 (erroneous description), and VII, 618.
- aper Walk .-- Mexico. -- Walker, List, etc. VII, 621.
- apicalis Wied. --- N. America (Wied.); Mass. (Harris Cat.).-Dipt. Exot. I, 191, 16. Auss. Zweifl. I, 443, 28 (Asilus). List, etc. II, 453, and VII, 619.
- argyrogaster Macq. --- Yucatan. --- Macq. Dipt. Exot. Suppl. 1er 84, 35. Mém. de Lille, 1844, p. 212. Walker, List, etc. VII, 620.
- barbatus Fab.——vid. pogonias.
- Bastardi Macq. --- N. America. --- Macq. Dipt. Exot. I, 2, 117, 25, tab. ix, fig. 7. Mém. de Lille, 1838, 3e part. p. 233. Walker, List, etc. VII, 618.
- Caudex Walk. --- W. Indies. --- Walker, List, etc. II, 404.
- completus Macq.—N. America.—Macq. Dipt. Exot. I, 2, 117, 23, tab. ix, fig. 9. Mém. de Lille, 1838, 3e part. p. 233. Walker, List, etc. VII, 618.
- Dascyllus Walk.—Massachusetts.—Walker, List, etc. II, 401.
- femoratus Macq.—Carolina.—Macq. Dipt. Exot. I, 2, 115, 20. de Lille, 1838, 3e part. p. 231. Walker, List, etc. II, 399, and VII, 619.
- flavofasciatus Wied.—Brazil (Wied.); Honduras (Walk.).—Wied. Auss. Zweifl. I, 470, 68. Walker, List, etc. II, 400, and VII, 636.
- fortis Walk. --- St. Domingo. --- Walker, List, etc. VII, 623.
- fulvibarbis Macq.——St. Domingo.——Macq. Dipt. Exot. 3e Suppl. 28, 44; tab. ii, fig. 13. Mém. de Lille, 1847, p. 188. Walker, List, etc. VII, 624.
- Haitensis Macq.—St. Domingo.—Macq. Dipt. Exot. 3e Snppl. 28, 45; tab. ii, fig. 10. Mém. de Lille, 1847, p. 188. Walker, List, etc. VII, 623.
- Haloesus Walk.—Jamaica.—Walker, List, etc. II, 405.

- incisuralis Macq. Philadelphia. Macq. Dipt. Exot. I, 2, 117, 24. Mém. de Lille, 1838, 3e part. p. 233. Walker, List, etc. VII, 619.
- invarius Walk.—Jamaica.—Walker, Dipt. Saund. II, 131. lascivus Wied.—Brazil (Wied.); Honduras (Walk.).—Wied. Auss. Zweifl. I, 474, 75. Walker, List, etc. II, 400, and VII, 637 (var. As. Amarynceus Walk. ibid.).
- lateralis Macq. Philadelphia. Macq. Dipt. Exot. I, 2, 116, 21. Mem. de Lille, 1838, 3e part. p. 232. Walker, List, etc. VII, 617.
- macrolabis Wied. -- Kentucky (Wied.); Georgia (Walk.). -- Wied. Auss. Zweifl. I, 458, 51. Walker, List, etc. II, 398, and VII, 618 (E. maculabis).
- niger Wied. Georgia. Wied. Dipt. Exot. I, 196, 26. Auss. Zweifl. I, 460, 53 (Asilus). Walker, List, etc. II, 398; VII, 617.
- nigrimystaceus Macq. -- Guadaloupe. -- Macq. Dipt. Exot. 2e Suppl. 41, 40. Mém. de Lille, 1846, p. 57. Walker, List, etc. VII. 633.
- notabilis Macq. -- North (?) America. -- Macq. Dipt. Exot. I, 2, 110, 6; tab. ix, fig. 8. Walker, List, etc. VII, 620.
- pogonias Wied. --- N. America. --- Wied. Dipt. Exot. I, 198, 29. Auss. Zweifl. p. 460, 54 (Asilus). Walker, List, etc. VII, 617. Fabr. Syst. Antl. p. 169, 22. (Asilus barbatus, identified by Wied. on comparison of original specimens; name changed, because another As. barbatus Fab. has the priority.)
- rufibarbis Macq. N. America. Macq. Dipt. Exot. I, 2, 116, 22. Mém. de Lille, 1838, 3e part. p. 232. Walker, List, etc. II, 399, and VII, 618.
- rufitibia Macq. St. Domingo, Rio Negro. Macq. Dipt. Exot. 3e Suppl. 27, 42, tab. ii, fig. 11. Mém. de Lille, 1847, p. 187. Walker, List, etc. VII, 623.
- tibialis Macq. --- Philadelphia, St. Domingo, Cayenne. --- Macq. Dipt. Exot. I, 2, 118, 27. Mém. de Lille, 1838, 3e part. p. 234. Walker, List, etc. VII, 618.
- vicinus Maeq. ——Texas. ——Maeq. Dipt. Exot. 1er Suppl. 85, 36. de Lille, 1844, p. 213. Walker, List, etc. VII, 619.

### Proctacanthus Macq.

- brevipennis Wied. Kentucky (Wied.); Florida (Walk.). Wied. Auss. Zweifl. 1, 431, 10 (Asilus). Walker, List, etc. II, 443 (doubtful), and VII, 649.
- fulviventris Macq. -- Florida. -- Macq. Dipt. Exot. 4e Suppl. p. 88, 12. Mém. de Lille, 1849, p. 392.
- heros Wied. Kentucky, Mass. (? Harris Cat.). Wied. Auss. Zweifl. I, 427, 4 (Asilus). Walker, List, etc. II, 414; VII, 649.
- longus Wied. Georgia, Brazil (Macq.). Wied. Dipt. Exot. I, 183, 1. Auss. Zweifl. I, 426, 3 (Asilus). Macq. Hist. Nat. Dipt. I, 307, 18 (Asilus). Dipt. Exot. I, 2, 123, 6. Mem. de Lille, 1838, 3e part. p. 239. Walker, List, etc. VII, 648.
- Milbertii Macq.—N. America.—Macq. Dipt. Exot. I, 2, 124, 8. Mém. de Lille, 1838, 3e part. p. 240. Walker, List, etc. VII, 649.

- nigriventris Macq. ——Philadelphia, Carolina. ——Macq. Dipt. Exot. I, 2, 124, 9. Mém. de Lille, 1838, 3e part. p. 240. Walker, List, etc. VII. 649.
- Philadelphicus Macq. Philadelphia. Macq. Dipt. Exot. I, 2, 123, 7. Mém. de Lille, 1838, 3e part. p. 239. Walker, List, etc. VII, 649.
- rufiventris Macq. St. Domingo, Honduras. Macq. Dipt. Exot. I, 2, 123, 5, tab. x, fig. 2. Mem. de Lille, 1838, 3e part. p. 239. Walker. List, etc. II, 409, and VII, 650.

#### Asilus Lin.

- abdominalis Say.—N. W. Territory.—Say, Long's Exp. App. p. 375. (1 am not sure if this species, overlooked by all subsequent authors, belongs to the present group.)
- Alethes Walk.—New York.—Walker, List, etc. II, 454. ansatus Harris.—Cat. Ins. Mass.
- Antimachus Walk.—Trenton Falls.—Walker, List, etc. II, 454.
- annulipes Macq.—Carolina.—Macq. Dipt. Exot. I, 2, 149, 36. Mém. de Lille, 1838, 3e part. p. 265. Walker, List, etc. VII, 693.
- atripes Fab.—W. Indies.—Fabr. Syst. Antl. p. 170, 29 (Dasypogon).
   Wied. Dipt. Exot. I, 195, 24. Auss. Zweifl. I, 455, 46. Walker, List, etc. VII, 695.
- femoralis Macq. —Philadelphia. —Macq. Dipt. Exot. 2e Suppl. 45, 61. Mém. de Lille, 1846, p. 61. Walker, List, etc. VII, 695.
- glauconotatus Harris. --- Cat. Ins. Mass.
- gracilis Wied.——Savannah.——Wied. Auss. Zweifl. I, 445, 31. Walker, List, etc. VII, 694.
- Herminius Walk.—Massachusetts.—Walker, List, etc. II, 410 (sericeus Say (?) according to Walker).
- interruptus Macq.—Georgia.— Macq. Hist. Nat. Dipt. I, 310, 29. Walker, List, etc. VII, 693.
- Lecythus Walk. —— Nova Scotia. —— Walker, List, etc. II, 451; var ' Asil. agrius ibid. II, 452.
- longicella Macq. ——N. America (?) Macq. Dipt. Exot. 4e Suppl. p. 95,77. Mém. de Lille, 1849, p. 399, tab. ix, fig. 5.
- mexicanus Macq.—Mexico.—Macq. Dipt. Exot. 1er Suppl. 94, 55. Mcm. de Lille, 1844, p. 222. Walker, List, etc. VII, 695.
- notatus Wied.——Georgia.——Wied. Auss. Zweifl. I, 451, 40. Walker, List, etc. VII, 694.
- Novæ Scotiæ Macq.—Nova Scotia.—Macq. Dipt. Exot. 2e Suppl. 46, 62. Mem. de Lille, 1846, p. 62. Walker, List, etc. VII, 693.
- Orphne Walk.—New York.—Walker, List, etc. II, 456.

  Paropus Walk.—New York.—Walker, List, etc. II, 455.
- plinthopygus Wied.—Cuba.—Wied. Dipt. Exot. I, 184, 4. Auss. Zweifl. I, 432, 11. Walker, List, etc. VII, 695.
- Sadyates Walk.—Ohio.—Walker, List, etc. II, 453.
- sericeus Say.——Penna. (Say); Mass. (Harris Cat.).——Say, J. Acad. Phil. III, 48, 2. Wied. Auss. Zweifl. I, 429, 8. Walker, List, etc. VII, 694.
- stylatus Fab. West Indies. Fab. Syst. Ent. IV, 795, 17. Ent. Syst.

Syst. Antl. p. 171, 31 (Dasypogon). Wied. IV. 384, 38 (Asilus). Dipt. Exot. I, 198, 30. Auss. Zweifl. I, 462, 57, tab. vi, fig. 6.

tibialis Macq. — Philadelphia. — Macq. Hist. Nat. Dipt. I, 313, 38. Walker, List, etc. VII, 692.

ultimus Walk.——N. America.——Walker, Dipt. Saund. II, 136. vittatus Oliv.——St. Domingo.——Oliv. Encycl. Meth. I, 263, 4. vorax Harris.——Cat. Ins. Mass.

### Ommatius Illig.

marginellus Fabr. W. Indies. Fabr. Spec. Ins. II, 464, 22 (Asilus). Ent. Syst. p. 384, 36 (id.). Syst. Antl. p. 170, 28 (Dasypogon). Wied. Dipt. Exot. I, 213, 1. Auss. Zweifl. I, 421, 5, tab. vi, fig. 5.

pumilus Macq. — Mexico. — Macq. Dipt. Exot. 2e Suppl. 42, 6. Mém. de Lille, 1846, p. 58, tab. i, fig. 10. Walker, List, etc. VII, 755.

Saccas Walk.—Jamaica.—Walker, List, etc. II, 474.

tibialis Say .-- Penna. -- Say, J. Acad. Phil. III, 49. Wied. Auss. Zweifl. I, 422, 6. Walker, List, etc. VII, 755.

#### Pheneus Walk.

tibialis Walk .--- Jamaica .--- Walker, Dipt. Saund. II, 156, tab. iv, fig. 3.

### Leptogaster Meig.

annulatus Say .-- vid. histrio Wied.

fervens Wied. --- Mexico. --- Wied. Auss. Zweifl. II, 646, 68.

histrio Wied.—Penna.—Say, J. Acad. Phil. III, 75, 1 (L. annulatus). Wied. Auss. Zweifl. I, 535, 5. Walker, List, etc. VII, 769.

nitidus Macq. — Carolina. — Macq. Dipt. Exot. I, 2, 155, 1, tab. xii, Mém. de Lille, 1838, 3e part. p. 271 (Gonypes). Walker, fig. 7. List, etc. VII, 769.

N. B. The name of L. nitidus having been applied already to several other species, Leew proposes for the present one the name of L. gigas, which seems to have been originally intended for it by Macquart, and is engraved on the plate (conf. Linn. Entom. II, 395).

# Fam. VIII. LEPTIDES.

### Leptis Fabr.

albicornis Say. — Georgia (Walk.); Penna. (Say). — Say, J. Acad. Phil. III, 38, 9. Amer. Entom. tab. xiii. Wied. Auss. Zweifl. I, 223, 4. Walker, List, etc. I, 212 (Rhagio).

auricineta Harris. — Cat. Ins. Mass.

basilaris Say. ——Georgia (Walk.); Penna. (Say). ——Say, J. Acad. Phil. III, 36, 4. Wied. Auss. Zweifl. I, 228, 16. Walker, List, etc. I, 217.

Boscii Macq. — Carolina. — Macq. Dipt. Exot. II, 1, 30, 2. Mém. de Lille, 1840, p. 308.

fasciata Say.—Penna.—Say, J. Acad. Phil. III, 37, 7. Amer. Ent. tab. xiii. Wied. Auss. Zweifl. I, 225, 9.

LEPTIDES. 37

- fumipennis Say.—Georgia, New York, Trenton, Nova Scotia (Walk.);
  Penna. (Say).—Say, J. Acad. Phil. III, 37, 6. Wied. Auss. Zweifl.
  I, 227, 12. Walker, List, etc. I, 217.
- humeralis Harris.——Cat. Ins. Mass.
- intermedia Walk. Huds. Bay. Walker, List, etc. I, 212 (Rhagio).
- mystacea Macq.—Nova Scotia, New York, Trenton Falls (Walker); Amer. Sept. (Macq.).—Macq. Dipt. Exot. II, 1, 30, 1, tab. iii, bis, fig. 2. Walker, List, etc. I, 212, and IV, 1153 (Rhagio), described again, the identification with Macquart being doubtful.
- ornata Say.—Penna. (Say); Trenton Falls (Walker); Mass. (Harris Cat.).—Say, J. Acad. Phil. III, 34, 1. Amer. Entom. tab. xiii. Wied. Auss. Zweifl. I, 22I, 1. Walker, List, etc. I, 213. Described, the identification being doubtful.
- par Walk. --- N. America. --- Walker, List, etc. I, 215.
- plumbea Say. New York (Walk.); Penna. (Say); Mass. (Harris Cat.).
   Say, J. Acad. Phil. III, 39, 10. Wied. Auss. Zwiefl. I, 228, 15.
  Walker, List, etc. I, 217.
- propinqua Walk. (= simillima δ?)——Trenton Falls.——Walker, List, etc. I, 215.
- proxima Walk.—Nova Scotia.—Walker, List, etc. I, 214.
- punctipennis Say.—Penna.—Say, J. Acad. Phil. III, 34, 2. Wied. Auss. Zweifl. I, 227, 13.
- quadrata Say. Trenton Falls, Nova Scotia (Walk.); Pennsylvania,
   Missouri (Say). Say, J. Acad. Phil. III, 35, 3. Wied. Auss. Zweifl.
   I, 226, 11. Walker, List, etc. I, 216.
- reflexa Walk.——Ohio, Nova Scotia.——Walker, List, etc. I, 216.
- rufithorax Say.—Penna.—Say, J. Acad. Phil. III, 36, 5. Wied. Auss. Zweifl. I, 223, 5.
- simillima Walk.—Trenton Falls.—Walker, List, etc. I, 215.
- thoracica Fab.—Am. Sept. (Macq. Wied.).—Georgia, Delaware, New York (Walk.).—Fabr. Syst. Antl. p. 70, 4. Wied. Auss. Zweifl. I, 222, 2. Macq. Dipt. Exot. II, 1, 32, 1, tab. iii, bis, fig. 3. Mém. de Lille, 1840, p. 310 (Chrysopyla). Walker, List, etc. I, 214.
- trifasciata Harris. -- Cat. Ins. Mass.
- vertebrata Say.——Florida.——Say, J. Acad. Phil. III, 38, 8. Amer. Entom. tab. xiii. Wied. Auss. Zweifl. I, 224, 7.

#### Suneches Walk.

simplex Walk.——U. States.——Walker, Dipt. Saund. III, 165, tab. v, fig. 7.

#### Atherix Latr.

filia Walk.—New York, Trenton.—Walker, List, etc. I, 219. variegata Walk.—Huds. Bay.—Walker, List, etc. I, 218. vidua Walk.—Huds. Bay.—Walker, List, etc. IV, 1153.

#### Fam. IX. XYLOTOMÆ.

### Scenopinus Latr.

nubilipes Say. --- Indiana. --- Say, J. Acad. Phil. VI, 170. pallipes Say. — Penna. — Say, J. Acad. Phil. III, 100. Wied. Auss. Zweifl. II, 233.

### Thereva Latr.

albifrons Say.——Indiana.—Say, J. Acad. Phil. VI, 156. aurata Harris.——Cat. Ins. Mass.

conspicua Walk.—Nova Scotia.—Walker, List, etc. I, 223.

corusca Wied.—vid. tergissa Say.

frontalis Say.—N. W. Territory (Say); Mass. (Walk.)—Say, Long's Exp. App. p. 370. Wied. Auss. Zweifl. I, 230, 2.

germana Walk.—Florida.—Walker, List, etc. I, 222.

haemorrhoidalis Macq.—Carolina.—Macq. Dipt. Exot. II, 1, 26, 9. Mém. de Lille, 1840, p. 304.

nervosa Walk.—Georgia.—Walker, List, etc. I, 223.

nigra Say.—Penna. (Say); Mass. (Harris Cat.).—Say, J. Acad. Phil.

III, 40, 2. Wied. Auss. Zweifl. I, 235, 12. notata Wied.—Georgia (Wied.); Mass. (Harris Cat.).—Wied. Dipt. Exot. I, 114, 8. Auss. Zweifl. I, 236, 14.

pictipennis Wied.—Georgia.—Wied. Dipt. Exot. I, 113, 6. Auss. Zweifl. I, 235, 11. Walker, List, etc. I, 225.

plagiata Harris --- Massachusetts. --- Harris, Cat. Ins. Mass. Walker, List, etc. I, 223 (description given).

ruficornis Macq. — Carolina. — Macq. Dipt. Exot. II, 1, 25, 8. Mém. de Lille, 1840, p. 303.

senex Walk.—Nova Scotia.—Walker, List, etc. I, 224.

tergissa Say. -- East Florida. -- Say, J. Acad. Phil. III, 39, 1. Wied. Auss. Zweifl. I, 232, 7 (T. corusca).

varia Walk.—Florida.—Walker, List, etc. I, 221.

vicina Walk. ——Nova Scotia. ——Walker, List, etc. I, 222.

## Fam. X. BOMBYLIARII.

### Hirmoneura Wied.

brevirostris Macq. — Yucatan. — Macq. Dipt. Exot. 1er Suppl. 101, 8. Mém. de Lille, 1844, tab. xx, fig. 1.

#### Anthrax Linn.

abbreviata Wied. --- Mexico. --- Wied. Auss. Zweifl. II, 637, 49.

albipectus Macq.—N. America.—Macq. Dipt. Exot. 3e Suppl. 34, 80. Mém. de Lille, 1847, 2e part. p. 194, tab. iii, fig. 12.

albofasciata Macq. — Georgia. — Macq. Dipt. Exot. II, 1, 67, 34. Mém. de Lille, 1840, p. 345, tab. xxi, fig. 12. Macq. Hist. Nat. Dipt. I, 407, 25 (A. analis Macq. non Say).

- albovittata Macq.—Amer. Sept. (?)—Macq. Dipt. Exot. 4e Suppl. p. 113, 90. Mém. de Lille, 1849, p. 417, tab. x, fig. 15.
- Alcyon Say. —vid. Haleyon.
- alternata Say. Pennsylvania, Missouri (Say). Say, J. Acad. Phil. III, 45, 5. Wied. Auss. Zweifl. I, 303, 66. Walker, List, etc. II, 259.
- analis Say .- Georgia (Say); Mass. (Harris Cat.); Nova Scotia (Walk.); Brasilia (Macq.).—Say, J. Acad. Phil. III, 45, 4. Wied. Auss. Zweifl. I, 313, 80. Macq. Dipt. Exot. II, 1, 67, 32. Mém. de Lille, 1840, p. 345. Walker, List, etc. II, 257.
- analis Macq. Georgia. vid. A. albofasciata Macq.
- antecedens Walk. --- U. States. --- Walker, Dipt. Saunders, III, 193.
- assimilis Macq. Texas. Macq. Dipt. Exot. 1er Suppl. 114, 73. Mém. de Lille, 1844, p. 242.
- Astarte Wied. Mexico. Wied. Auss. Zweifl. II, 637, 48.
  Bastardi Macq. Nova Scotia (Walk.); Amer. Sept. (Macq.). Macq. Dipt. Exot. II, 1, 60, 13, tab. xx, fig. 3. Mém. de Lille, 1840, p. 338. Walker, List, etc. II, 260.
- californiæ Walk.—California.—Walker, Dipt. Saunders, III, 172.
- caliptera Say. ——Arkansas. ——Say, J. Acad. Phil. III, 46, 7.
  - N. B A. capucina Fabr. Ent. Syst. IV, 259, 12, and Syst. Antl. p. 123, 23, is not from N. America, but a European species (vid. Meigen, etc.).
- cedens Walk.—U. States.—Walker, Dipt. Saunders, III, 190.
- celer Wied.—Kentucky.—Wied. Auss. Zweifl. I, 310, 77. Dipt. Exot. II, 1, 69, 43. Mém. de Lille, 1840, p. 347.
- cephus Fab. ——South America (Fab. Wied.); Georgia (Macq.). ——Fab. Syst. Antl. p. 124, 25. Wied. Auss. Zweifl. I, 297, 58. Macq. Dipt. Exot. II, 1, 59, 12.
- Cerberus Fab.—Jamaica.—Fabr. Entom. System. IV, 256, 1. Syst. Antl. p. 118, 1. Wied. Dipt. Exot. I, 118, 1. Auss. Zweifl. I, 253, 2, tab. iii, fig. 1. Macq. Hist. Nat. Dipt. I, 400, 1. Dipt. Exot. II, 1, 38, 6, tab. xvi, fig. 5. Mém. de Lille, 1840, p. 316 (Exoprosopa). Walker, List, etc. II, 238.
- Clotho Wied.—Mexico.—Wied. Auss. Zweifl. II, 635, 46. concisa Macq.—Carolina.—Macq. Dipt. Exot. II, 1, 68, 37. Mém. de Lille, 1840, p. 346.
- consanguinea Macq.—Philadelphia.—Macq. Dipt. Exot. II, 1, 69, 42. Mém. de Lille, 1840, p. 347, tab. xxi, fig. 1.
- coniceps Macq. Virginia. Macq. Dipt. Exot. 4e Suppl. p. 108, 63. Mém. de Lille, 1849, p. 412, tab. x, fig. 9 (Exoprosopa).
- conifacies Macq. -- Virginia. -- Macq. Dipt. Exot. 4e Suppl. p. 112, 88. Mém. de Lille, 1849, p. 416, tab. x, fig. 13.
- connexa Macq. —Baltimore. Macq. Dipt. Exot. 5e Suppl. p. 76, 96. Mém. de Lille, 1855.
- costata Say.—N. W. Territory.—Say, Long's Exp. App. p. 373, 5. Wied. Auss. Zweifl. I, 314, 82.
- cyanoptera Wied.——Mexico.——Wied. Auss. Zweifl. II, 638, 51. delicatula Walk.——Jamaica.——Walker, List, etc. II, 266.
- Demogorgon Walk. ---- Florida. ---- Walker, List, etc. II, 265.
- disjuncta Wied. Mexico. Wied. Auss. Zweifl. II, 639, 53.
- edititia Say. --- Indiana. --- Say, J. Acad. Phil. VI, 157.

- elongata Say. Penna. Say, J. Acad. Phil. III, 41, 8 (Stygia elongata) Wied. Auss. Zweifl. I, 315, 83, and I, 561, 41, tab. ii, fig. 6 (Lomatia).
- emarginata Macq. Georgia, Massachusetts (Walk.). Macq. Dipt. Mém. de Lille, 1840, p. 329 (Exoprosopa). Exot. II, 1, 51, 40. Walker, List, etc. II, 250.
- fasciata Macq. —Georgia. —Macq. Dipt. Ex. II, 1, 51, 38, tab. xvii, fig. 6. Mém. de Lille, 1840, p. 329 (Exoprosopa). Walker, List, etc. II, 250.
- fascipennis Say. -- Kentucky, Pennsylvania (Say); Florida, Nova Scotia (Walk.).—Say, Long's Exp. App. p. 373, 4. Wied. Auss. Zweifl. I, 284, 39. Walker, List, etc. II, 257 (A. georgica Macq.?).
- faunus Fabr.—West Indies.—Fabr. Syst. Antl. p. 126, 38. Dipt. Exot. I, 139, 30. Auss. Zweifl. I, 292, 50. Macq. Dipt. Exot. II, 1, 75, 61, tab. xxi, fig. 1. Mém. de LiHe, 1840.
- floridana Macq. Florida. Macq. Dipt. Exot. 4e Suppl. p. 112, 89. Mém. de Lille, 1849, p. 416, tab. x, fig. 14.
- fulviana Say. St. Peter's River (Say); Nova Scotia (Walk.). Say, Long's Exp. App. p. 372, 3. Wied. Auss. Zweifl. I, 290, 47. Walker, List, etc. II, 259.
- fulvohirta Wied. Georgia (Wied.); Carolina (Macq.). Wied. Dipt. Exot. I, 149, 46. Auss. Zweifl. I, 308, 73. Macq. Dipt. Exot. II, 1, 69, 41. Mém. de Lille, 1840, p. 347. Meigen, Dipt. II, 158, 26, tab. xvii, fig. 11 (A. cypris, erroneously described as European). Walker, List, etc. II, 257.
- fumiflamma Walk.——Jamaica.——Walker, Dipt. Saunders, III, 184.
- funebris Macq.—St. Domingo.—Macq. Dipt. Exot. II, 1, 66, 30. Mém. de Lille, 1840, p. 344, 5, 21, fig. 10.
- fuscipennis Macq.—N. America.—Macq. Hist. Nat. Dipt. I, 410, 33.
- georgica Macq. —Georgia. —Macq. Hist. Nat. des Dipt. I, 406, 19. Dipt. Exot. II, 1, 68, 38. Mem. de Lille, 1840, p. 346, tab. xxi, fig. 11. gideon Fabr.—Jamaica.—Fabr. Syst. Antl. p. 125, 27. Wied. Auss.
- Zweifl. I, 311, 79. Walker, List, etc. II, 257.
- Gorgon Fab. West Indies. Fab. Syst. Antl. p. 126, 41, et 127, 42. (A. gorgon and A. maimon, belonging according to Wiedemann to the same species.) Wied. Auss. Zweifl. I, 303, 67.
- gracilis Macq. Philadelphia. Macq. Dipt. Exot. II, 1, 76, 64. Mém. de Lille, 1840, p. 354, tab. xxi, fig. 1.
- Halcyon Say. Georgia (Walk.); N. W. Territory (Say); Carolina (Macq.).—Say, Long's Exp. App. p. 371 (Alcyon). Wied. Auss. Zweifl. I, 288, 44, tab. iii, fig. 6. Macq. Hist. Nat. Dipt. Dipt Exot. II, 1, 68, 38. Mém. de Lille, 1840, p. 346, tab. xix, fig. 6. Walker, List, etc. II, 264.
- hypomelas Macq.——Amer. Sept.——Macq. Dipt. Exot. II, 1, 76, 63. Mém. de Lille, 1840, p. 354, tab. xxi, fig. 1.
- ignifer Walk.——Jamaica.——Walker, List, etc. II, 243. incisa Walk.——N. America.——Walker, Dipt. Saunders, III, 187.
- irrorata Say .- vid. Œdipus Fabr.
- irrorata Macq.—Carolina, Georgia.—Macq. Dipt. Exot. II, 1, 60, 15. Mém. de Lille, 1840, p. 338, tab. xx, fig. 6.
- lacera Wied. --- Mexico. --- Auss. Zweifl. II, 633, 44.

- lateralis Say.—Florida, Nova Scotia (Walk.); Mass. (Harris Cat.);
  Pennsylvania, Maryland (Say).—Say, J. Acad. Phil. III, 42, 2.
  Wied. Auss. Zweiff. I, 318, 89. Walker, List, etc. II, 260.
- Latreillii Wied.—Mexico.—Wied. Auss. Zweifl. II, 633, 43.
- leucothoa Wied. -- Mexico. -- Wied. Auss. Zweifl. II, 638, 50.
- limatulus Say. -- Indiana. -- Say, J. Acad. Phil. VI, 157.
- limbipennis Macq. ——Yucatan. ——Macq. Dipt. Exot. 1er Suppl. 110, 50. Mém. de Lille, 1844, p. 238, tab. xx, fig. 3 (*Exoprosopa*).
- longirostris Macq. Virginia. Macq. Dipt. Exot. 4e Suppl. p. 108, 62. Mém. de Lille, 1849, p. 412, tab. x, fig. 8 (Exoprosopa).
- Lucifer Fabr.—West Indies.—Fab. Syst. Ent. p. 759, 13. Mant. II,
  329, 21 (Bibio). Ent. Syst. IV, 262, 21. Syst. Antl. p. 126, 40.
  Wied. Dipt. Exot. I, 142, 36. Auss. Zweifl. I, 294, 53.
- morioides Say. Missouri (Say); Mass. (Harris Cat.). Say, J. Acad. Phil. III, 42, 1. Wied. Auss. Zweifl. I, 309, 75.
- Nero Fabr. West Indies. Fabr. Syst. Antl. p. 127, 45. Wied. Dipt. Exot. I, 149, 47. Auss. Zweifl. I, 316, 85.
- noctula Wied.—Mexico.—Wied. Auss. Zweifl. II, 635, 45.
- nycthomera Hoffm.—Europe. (aut.); America (Georgia, according to Macquart).—Meigen, Europ. Zweifl. etc. Macq. Dipt. Exot. II, 1, 67, 33. Mém. de Lille, 1840, p. 345.
- Oedipus Fab. Kentucky, Penna. (Wied.); West Indies (Fab.); Nova Scotia (Walk.); Rocky Mountains (Say). Fabr. Syst. Antl. p. 123, 22. Wied. Dipt. Exot. I, 124, 8. Auss. Zweifl. I, 262, 12. Say, J. Acad. Phil. III, 46, 6 (A. irrorata). Walker, List, etc. II, 253.
- Orcus Walk.——Mexico.——Walker, List, etc. II, 237.
- philadelphious Macq. ——Philadelphia. ——Macq. Dipt. Exot. II, 1, 52, 41. Mém. de Lille, 1840, p. 330, tab. xviii, fig. 1 (*Exoprosopa*).
- Pilatei Macq. Yucatan. Macq. Dipt. Exot. 1er Suppl. 110, 49. Mém. de Lille, 1844, p. 238, tab. xx, fig. 2 (Exoprosopa).
- Pluto Wied.—Kentucky.—Wied. Auss. Zweifl. I, 261, I1.
- Proserpina Wied. ——Cuba, St. Domingo (Macq.). Wied. Auss. Zweifl. I, 257, 6 (*Patria ignota*). Macq. Dipt. Exot. II, 1, 38, 7. Mem. de Lille, 1840, p. 316 (*Exoprosopa*).
- pusio Macq. Cuba. Macq. Dipt. Exet. II, 1, 76, 62. Mém. de Lille, 1840, p. 354, tab. xxi, fig. 1.
- rubiginosa Macq.—Philadelphia, Columbia.—Macq. Dipt. Exot. II, 1, 51, 39; *ibid.* 1er Suppl. p. 111. Mém. de Lille, 1840, p. 329, tab. xviii, fig. II; *ibid.* 1844, p. 239 (*Exoprosopa*).
- satyrus Fab. Georgia. Fab. Ent. Syst. IV, 259, 13 (Anthrax).
   Syst. Ent. p. 758, 10. Mant. Ins. II, 329, 16 (Bibio).
   Wied. Auss. Zweifl. I, 322, 95. Walker, List, etc. II. 243.
  - N. B. Syst. Antliat. Fabricius mentions the same as coming from China.
- scapularis Harris. -- Cat. Ins. Mass.
- scripta Say. -- rid. A. simson.
- separata Walk. Bolton, N. America. Walker, Dipt. Saund. III, 177.
  Simson Fab. Delaware, New York (Walk.); Penna. (Say); South America (Fab.). Fabr. Syst. Antl. p. 119, 5. Wied. Dipt. Exot.

- I, 122, 6. Auss. Zweifl. I, 259, 9, tab. iii, fig. 2. Macq. Dipt. Exot. II, 1, 59, 11. Mém. de Lille, 1838, p. 337, tab. xxix, fig. 11. Say, J. Acad. Phil. III, 43, 3 (A. scripta). Degeer, Ins. tab. xxix, fig. 11 (Nemotelus tigrinus). Walker, List, etc. II, 251.
- N. B. Fabricius quotes his A. nigrita as Syn. of Nemot. tigrinus Deg. sinuosa Wied.——Georgia.——Wied. Dipt. Exot. I, 147, 42. Auss. Zw. I, 301, 64.
- subfascia Walk.—Jamaica.—Walker, List, etc. II, 249.
- tegminipennis Say.——Nova Scotia (Walk.); N. W. Territory (Say).——Say, Long's Exp. App. p. 371, 2. Wied. Auss. Zweifl. I, 289, 46. Walker, List, etc. II, 245.
- terminalis Wied. Mexico. Wied. Auss. Zweifl. II, 639, 52.
- Thomae Fab.——St. Thomas.——Fab. Syst. Antl. p. 125, 32. Wied Dipt. Exot. I, 129, 13. Auss. Zweifl. I, 271, 22.
- translata Walk.——West Indies.——Walker, Dipt. Saund. III, 182.
- trimacula Walk .-- Jamaica .-- Walker, List, etc. II, 250.
- valida Wied. -- Mexico. -- Wied. Auss. Zweifl. II, 636, 47.
- vestita Walk .-- Nova Scotia .-- Walker, List, etc. II, 258.

### Ogcodocera Macq.

dimidiata Macq.——Amer. Sept.——Macq. Dipt. Exot. II, 1, 84. Mém. de Lille, 1840, p. 362, tab. xv, fig. 1.

### Bombylius Linn.

- aequalis Fab. Amer. Boreal. (Fab.); Carolina (Macq.); Mass. (Harris Cat.). Fab. Mant. Ins. II, 365, 2. Syst. Antl. p. 128, 2. Oliv. Encycl. Méth. I, 326, 2. Wied. Auss. Zweifl. I, 350, 32. Macq. Dipt. Exot. II, 1, 99, 34. Mém. de Lille, 1840, p. 377, 34, tab. vii, fig. 3.
- albipectus Macq ——Baltimore.——Macq. Dipt. Exot. 5e Suppl. p. 82, 71, tab. iv, fig. 10. Mém. de Lille, 1855.
- apertus Macq. —Guadaloupe. Macq. Dipt. Exot. 2e Suppl. 54, 50. Mém. de Lille, 1846, p. 71.
- brevirostris Macq. ——Carolina. ——Macq. Dipt. Exot. II, 1, 103, 43. Mém. de Lille, 1840, p. 381, tab. vii, fig. 7.
- confusus Wied. ——South America (Wied.); North America (?Lœw). —— Lœw, Neue Beitr. 3ter Beitr. p. 44 (Sparnopolius). Wied. Dipt. Exot. I, 171, 21. Auss. Zweifl. II, 347, 26.
- eximius Macq. Mexico. Macq. Dipt. Exot. 4e Suppl. p. 115, 3. Mém. de Lille, 1849, p. 419, tab. xi, fig. 22 (Anisotamia).
- fratellus Wied.——North America.——Wied. Auss. Zweifl. I, 583, 17. Macq. Dipt. Exot. II, 1, 98. Mém. de Lille, 1840, p. 376 (B. vicinus; synonymy according to Lœw). Lœw, Neue Beiträge, etc. 3ter Beitr. p. 14.
- fulvibasis Macq.——Baltimore.——Macq. Dipt. Exot. 5e Suppl. p. 82, 72. Mém. de Lille, 1855.
- fulvus Wied. ——North America. ——Wied. Dipt. Exot. I, 172, 22. Auss. Zweifl. I, 347, 27. Walker, List, etc. II, 282. Lew, Neue Beitr. etc. 3ter Beitr. p. 43 (n. gen. Sparnopolius).

- helvus Wied. Georgia (Walk.); Mexico (Wied.). Wied. Dipt. Exot. I, 164, 6 b. Auss. Zweifl. I, 336, 8. Walker, List, etc. II, 280.
- L'herminieri Macq.—Carolina.—Macq. Dipt. Exot II, 1, 103, 44. Mém. de Lille, 1840, p. 381, tab. vii, fig. 7.
- major Lin.—Europe, North America, (Nova Scotia, New York, Hudson's Bay, etc. Walk.).—Linn. Fabr. Meig. etc. Kirby, Fauna Boreali Americ. Ins. p. 312. 1. Walker, List, etc. II, 281.
- mexicanus Wied. -- Mexico, Georgia (Wied.); Florida (Walk.). --Wied. Dipt. Exot. I, 166, 10. Auss. Zweifl. I, 338, 11. Walker, List, etc. II, 280. Lew, Neue Beitr. 3ter Beitrag, p. 24.
- philadelphicus Macq. Philadelphia. Macq. Dipt. Exot. II, 1, 99, 33. Mem. de Lille, 1840, p. 377, tab. vi, fig. 3, and tab. vii, fig. 3.
- plumipes Drury. Jamaica. Drury, Illustr. II, tab. xxxix, fig. 3. Wied. Auss. Zweifl. I, 351, 35.
- pygmaeus Fab. --- Nova Scotia, Huds. Bay (Walk.); N. America (Fab.). -Fab. Mant. Ins. II, 367, 13. Ent. Syst. IV, 411, 19. Syst. Antl. p. 135, 32. Olivier, Encyl. Méth. I, 328, 22. Wied. Auss. Zweifl. I, 351, 34. Lam. Anim. sans vert. III, 407, 4. Kirby, Fauna boreali americana, Ins. p. 312, 2. Walker, List, etc. II, 276. rufus Oliv.—West Indies.—Olivier, Encycl Méth. I, 327, 8. (Accord-
- ing to Low, Neue Beitr. 3ter Beitr. p. 29, this species is the same as B. basilaris Wied. from Brazil.) Walker, List, etc. II, 288.
- solitus Walk.——Florida.——Walker, List, etc. II, 288. varius Fab.——North America.——Fabr. Syst. Antl. p. 132, 17. Wied. Dipt. Exot. I, 163, 6. Auss. Zweifl. I, 335, 7. Walker, List, etc. II, 283. Low, Neue Beitr. 3ter Beitr. p. 29.
- vicinus Macq.—vid. B. fratellus.

#### Ploas Fabr.

pictipennis Macq.—Carolina.—Macq. Dipt. Exot. II, 1, 107, 2. Mém. de Lille, 1840, p. 385, tab. ix, fig. 3.

#### I'mthiria Meig.

punctipennis Walk. --- Georgia. --- Walker, List, etc. II, 294.

### Geron Hoffmannsegg.

- holosericeus Walk. Georgia. Walker, List, etc. II, 295.
- rufipes Macq.—Yucatan.—Macq. Dipt. Exot. 1er Suppl. 119. de Lille, 1844, p. 247.
- senilis Fabr.—Texas (Macq.); W. Indies (Wied.).—Fabr. Ent. Syst. IV, 411, 17. Syst. Antl. p. 135, 31 (Bombylius). Wied. Auss. Zweifl. I, 357, I. Macq. Dipt. Exot. 1er Suppl. 119. Mém. de Lille, 1844, p. 247.

### Apatomyza Wied.

nigra Macq. — Georgia (Walk.). — Macq. Hist. Nat. Dipt. I, 390, 1, tab. ix, fig. 19. Dipt. Exot. II, 1, 111, 1, tab. xi, fig. 1. Mém. de Lille, 1840, p. 389. Walker, List, etc. II, 297 (Cyllenia agiale Walk. vid. Walker, List, etc. IV, p. 1154.

### Systropus Wied.

faenioides Westw. --- Mexico. --- Westw. Magaz. de Zool. 1842, Ins. tab. xc (Generis dipter. mon. Systropi).

### Toxophora Wied.

- aegeriiformis Westw. Georgia. Westwood, Lond. and Edinb. Phil. Mag. VI, 447, 1 (Lepidophora). Macq. Dipt. Exot. 1er Suppl. 115, 1. Mem. de Lille, 1844, p. 243, tab. x, fig. 1 (Lepidophora). Gray, Griffith's Anim. Kingd. XV, Ins. p. 2, 779, tab. exxviii, fig. 6 (Ploas). Walker, List, etc. II, 299.
- Amphitea Walk.——Florida.——Walker, List, etc. II, 298.
- appendiculata Macq. Texas. Macq. Dipt. Exot. 1er Suppl. 118, Mém. de Lille, 1844, p. 243, tab. xx, fig. 4.
- fulva Gray. Georgia. Gray, Griffith's Anim. Kingd. XV, Ins. p. 2, 779, tab. exxviii, fig. 5. Walker, List, etc. II, 298.
- lepidocera Wied. ——Patria ignota (Wied.); Amer. Sept. (Macq.). —— Wied. Auss. Zweifl. I, 360, 1, tab. v, fig. 4. Macq. Dipt. Exot. II, 1, 119. Mém. de Lille, 1840, p. 397, and ibid. Suppl. p. 1, 119. Mém. de Lille, 1844, p. 247. According to this author, perhaps Q of T. appendiculata Macq.
- leucopyga Wied.—Patria ignota (Wied.); Carolina (Macq.); Georgia (Walk.). - Wied. Auss. Zweifl. I, 36I, 2. Macq. Dipt. Exot. II, 1. 117, 1, tab. xiii, fig. 1. Mém. de Lille, 1840, p. 395. Walker, List, etc. II, 298 (Syn. of Tox. fulva?).

#### Fam. XI. HYBOTINÆ.

### Hybos Fabr.

duplex Walk. --- New York. --- Walker, List, etc. III, 486. elevatus Harris.—Cat. Ins. Mass.
purpureus Walk.—Georgia.—Walker, l. c.
reversus Walk.—Trenton Falls.—Walker, l. c. 487.

subjectus Walk.——Huds. Bay.——Walker, İ. c. thoracious Say.——Penna. (Say). —— Say, J. Acad. Phil. III, 76, 1. Wied. Auss. Zweifl. I, 538, 3. Macq. Dipt. Exot. I, 2, 156, 1. Mém. de Lille, 1838, 3e part. p. 272, tab. xiii, fig. 1.

triplex Walk .-- Trenton Falls. Walker, List, etc. III, 486.

#### Ocydromia Hoffmannsegg.

peregrinata Walk. --- Trenton Falls. --- Walker, List, etc. III, 488.

#### Microphorus Macq.

drapetoides Walk. -- Huds. Bay. -- Walker, List, etc. III, 489.

#### Spania Meig.

Edeta Walk.—Huds. Bay.—Walker, List, etc. III, 489.

EMPIDÆ. 45

### Fam. XIII. EMPIDÆ.

### Hilara Meig.

transfuga Walk.——Huds. Bay.——Walker, List, etc. III, 491. migrata Walk.——Huds. Bay.——Walker, List, etc. III, 491.

#### Gloma Meig.

Phthia Walk.—Trenton Falls.—Walker, List, etc. III, 492.

### Empis Linn.

```
Abcirus Walk.—Georgia.—Walker, l. c. III, 494.
Agasthus Walk.—Huds. Bay.—Walker, l. c. III, 496.
Amytis Walk.—New York, Walker, l. c. III, 493.
atra Wied. ——St. Croix. ——Wied. Auss. Zweifl. II, 1, 1.
borealis Lin.—Europe (aut.); Grænland (Fab.).—Linné, etc. O. Fab.
    Fauna Greenl. p. 211, 174.
colonica Walk.—Nova Scotia.—Walker, l. c. III, 498. Cormus Walk.—Huds. Bay.—Walker, l. c. III, 496.
Eudamides Walk.—North America.—Walker, l. c. III, 493.
geniculata Kirby. — Amer. Boreal. — Kirby, N. Amer. Zool. Ins.
    p. 311, 2.
laniventris Esch. — Unalashka (Russian America). — Eschscholz, En-
    tomogr. I, 113, 83. Wied. Anss. Zweifl. II, 6, 12. Macq. Dipt. Exot.
    I, 2, 162. Mém. de Lille, 1838, 3e part. p. 272 (Eriogaster, nov. gen.).
Iuctuosa Kirby. ——Nova Scotia. ——Kirby, N. Amer. Zool. Ins. p. 311, 1.
    Walker, List, etc. III, 496.
Ollius Walk.——Nova Scotia.——Walker, List, etc. III, 493.
spiloptera Wied. — Mexico. — Wied. Auss. Zweifl. II, 5, 10.
```

### Rhamphomyia Meig.

```
Agasicles Walk.——Huds. Bay.——Walker, List, etc. III, 499.
americana Wied.——North America.——Wied. Auss. Zweifl. II, 8, 3.
Anaxo Walk.——Huds. Bay.——Walker, List, etc. III, 500.
atritarsa Harris.——Cat. Ins. Mass.
cilipes Say.——Ohio.——Say, J. Acad. Phil. III, 95, 2 (Empis). Wied.
Auss. Zweifl. II, 7, 2.
Cophas Walk.——New York.——Walker, List, etc. III, 499.
Dana Walk.——New York.——Walker, List, etc. III, 502.
Daria Walk.——New York.——Walker, 1. c. III, 503.
Ecetra Walk.——Georgia.——Walker, List, etc. III, 500.
Ficana Walk.——Huds. Bay.——Walker, 1. c. III, 501.
flavirostris Walk.——Huds. Bay.——Walker, 1. c. III, 501.
Mallos Walk.——Huds. Bay.——Walker, 1. c. III, 502.
Minytus Walk.——Huds. Bay.——Walker, 1. c. III, 502.
nigrita Zett.——Grænland.——Zetterstedt, Ins. Lapponica. Stæger,
Grænland's antliater.
nitidivittata Macq.——Texas.——Macq. Dipt. Exot. 1er Suppl. 97, 2.
```

Mém. de Lille, 1844.

Phemius Walk.——IIuds. Bay.——Walker, I. c. III, 500.
quinquelineata Say. ——Missouri. ——Say, J. Acad. Phil. III, 95, 1
(Empis). Wied. Auss. Zweifl. II, 7, 1.
rufirostris Say.——Indiana.——Say, J. Acad. Phil. III, 159.
scolopacea Say.——Pennsylvania, Maryland.——Say, J. Acad. Phil. III, 96, 3 (Empis). Wied. Auss. Zweifl. II, 8, 4.

#### Heliodromia Haliday.

longipes Walk .-- Huds. Bay .-- Walker, List, etc. III, 504.

#### Hemerodromia Hoffm.

albipes Walk.—Huds. Bay.—Walker, List, etc. III, 505. praecatoria Meig.—Europe (Meig.); Huds. Bay (Walk.).—Walk. l. c. superstitiosa Say.—New Territory.—Say, Long's Exp. II, App. 376. Wied. Auss. Zweifl. II, 11, 1.

### Tachydromia Meig.

fenestrata Say.—Middle States.—Say, J. Acad. Phil. III, 95 (Sicus). Wied. Auss. Zweifl. II, 12, 1.

maculipennis Walk.—Huds. Bay.—Walker, List, etc. III, 507.

portaecola Walk.—Huds. Bay.—Walker, l. c. III, 506.

similis Walk.—Huds. Bay.—Walker, l. c.

### Platypalpus Macq.

Alexippus Walk.—Huds. Bay.—Walk. l. c. Bacis Walk.—Jamaica.—Walker, List, etc. III, 510.

### Drapetis Meig.

nigra Meig.—Europe (Meig.); Huds. Bay (Walk.).—Meigen, Macquart, Curtis, etc. Walker, List, etc. III, 511.

### Fam. XIV. SYRPHICI.

#### Ceratophyia Wied.

fuscipennis Macq.—Philadelphia.—Macq. Hist. Nat. Dipt. I, 488, 3.

#### Ceria Fabr.

arietis Lew.—Mexico.—Lew, Neue Beiträge, etc. (1853) p. 17.

Daphnaeus Walk.—Jamaica.—Walker, List, etc. III, 537. Westwood,
Trans. Entom. Soc. V, 231, tab. xxiii, fig. 7. Lew, l. c. p. 17.

pictula Lew.—Southern States.—Lew, Neue Beitr. etc.

signifera Lew.—Mexico.—Lew, l. c. p. 17.

### Chymophila Macq.

splendens Macq. — Philadelphia. — Macq. Hist. Nat. Dipt. I, 486, 1, tab. xi, fig. 3. Dipt. Exot. II, 2, 10. Mém. de Lille, 1841, p. 70, tab. i, fig. 2.

47 SYRPHICI.

### Microdon Illiger.

- Agapenor Walk.—Georgia.—Walker, List, etc. III, 539. aurulentus Fab.—Carolina.—Fabr. Syst. Antl. p. 185, 8 (Mulio). Wied. Auss. Zweifl. II, 86, 10. Macq. Dipt. Exot. II, 2, 12, 4, 1. Mém. de Lille, 1841, p. 72, tab. ii, fig. 1.
- fulgens Wied. —Georgia (Wied.); Guyana (Macq.). —Wied. Auss. Zweifl. II, 82, 1. Gray, Griffith's Anim. Kingd. Ins. II, tab. exxv, fig. 2 (M. euglossoides, synon. according to Walker). Macq. Dipt. Exot. 1er Suppl. 122. Mém. de Lille, 1844. Walker, List, etc. III, 538.
- globosus Fab. ——Carolina (Fab.); Illinois (Walk.). ——Fabr. Syst. Antl. p. 185, 9 (Mulio). Wied. Auss. Zweifl. II, 86, 11. Macq. Dipt. Exot. II, 2, 12, 5, tab. i, fig. 4. Mém. de Lille, 1841, p. 72 (Aphritis). Newmann, Ent. Mag. V, 373 (Dimeraspis podagra; synonymy according to Walker). Walker, List, etc. III, 540.
- rufipes Macq.—Philadelphia.—Macq. Dipt. Exot. II, 2, 11, tab. ii, fig. 3. Mém. de Lille, 1841, p. 71 (Aphritis).
- trochilus Walk .- Mexico .- Walker, Dipt. Saund. III, 216.

### Dimeraspis Newm.

podagra Newm. --- Illinois. -- Newmann, Entomol. Magaz. V, 372 (syn. to Microdon globosus, according to Walker).

### Chrysotoxum Meig.

- derivatum Walk.—Huds. Bay.—Walker, List, etc. III, 542. fasciolatum Deg.—Europe (autores); Huds. Bay (Walk.).—Degeer, Meigen, Zetterstedt, etc. Walker, List, etc. III, 541.
- flavifrons Macq.—Newfoundland.—Macq. Dipt. Exot. II, 2, 17, 2. Mém. de Lille, 1841, p 77, 2, tab. iii, fig. 2.
- nigrita Fabr. Jamaica. Fabr. Entom. Syst. IV, 292, 49 (Syrphus). Syst. Antl. p. 183, 1 (Mulio). Wied. Auss. Zweifl. II, 88, 2.
- vittatum Wied. Country unknown (Wied.); North America (Macq.). --- Wied. Auss. Zweifl. II, 87, 1 (conf. below, Psarus ornatus).

#### Mixogaster Macq.

mexicanus Macq. — Mexico. — Macq. Dipt. Exot. 1er Suppl. 123. Mém. de Lille, 1844, p. 251, tab. x, fig. 15.

#### Somula Macq.

decora Macq. — Philadelphia. — Macq. Dipt. Exot. 2e Suppl. 57, 1. Mém. de Lille, 1846, p. 73, tab. ii, fig. 11.

#### Psarus Latr.

ornatus Wied. Georgia. Wied. Auss. Zweifl. II, 91, 1, tab. ix, fig. 7. Macq. Hist. Nat. Dipt. I, 491, 2. Dipt. Exot. II, 2, 18, 1. Mém. de Lille, 1841, p. 78, tab. iii, fig. 3 (Sphecomyia). N. B. Macquart considers Psarus ornatus Wied. and Chrysotoxum vittatum Wied. as identical.

48 Syrphici.

quadrifasciatus Say.—N. W. Territory (Say); Mass. (Harris Cat.).—Say, Long's Expedit. App. p. 377 (Paragus). Wied. Auss. Zweifl. II, 91, 2. Macq. Hist. Nat. Dipt. I, 491, 1, tab. xi, fig. 8 (Mixtemyia). Walker, List, etc. III, 543.

#### Paragus Latr.

aeneus Walk.——Ohio.——Walker, List, etc. III, 545. transatlanticus Walk.——Trenton Falls, New York.——Walker, List, etc. III, 544.

### Ascia Meig.

globosa Walk.—Trenton Falls.—Walker, List, etc. III, 546.

### Raccha Fabr.

aurinota Harris. — Massachusetts. — Harris, Catal. Ins. Mass. Walker, List, etc. III, 548 (description).

Babista Walker.—Georgia.—Walker, l. c. III, 549.

clavata Fab. ——West Indies. ——Fab. Ent. Syst. IV, 298, 73 (Syrphus). Syst. antl. p. 200, 3.

cochenillivora Guér. -- Mexico. -- Guérin, Rev. Zool. 1848, p. 350.

costata Say. -- Indiana. -- Say, J. Acad. Phil. VI, 161.

cubensis Macq. —Cuba. — Macq. Dipt. Exot. 4e Suppl. p. 161, 5. Mcm. de Lille, 1849, p. 465.

cylindrica Fab. — West Indies. — Fabr. Spec. Ins. II, 429, 41. Entom. System. IV, 298, 74 (Syrphus). Syst. Antl. p. 199, 2 (Baccha). Wied. Anss. Zweifl. II, 92, 1.

fuscipennis Say.—Penna.—Say, J. Acad. Phil. III, 100.

Hineata Macq. — Texas, Yucatan. — Macq. Dipt. Exot. Suppl. p. 1, 139,
4. Mem. de Lille, 1844, p. 267, tab. xx, fig. 5.

Tarchetius Walk. —Georgia. —Walker, List, etc. III, 549.

#### Eumerus Meig.

porcus Walk.——Huds. Bay.——Walker, List, etc. III, 551. privernus Walk.——U. States.——Walker, Dipt. Saunders, III, 225.

### Syritta St. Fargeau.

pipiens Macq.—North America.—Macq. Dipt. Exot. II, 74. Mém. de Lille, 1841, p. 134.

proxima Say.——Mass. (Harris Cat.); N. Scotia, Georgia, Ohio (Walk.); Pennsylvania, Virginia (Say).——Say, Americ. Entom. I, tab. viii, (Nylota.) Wied. Auss. Zweifl. II, 102, 9 (Nylota). Walker, List, etc. III, 552.

#### Toxomerus Macq.

notatus Macq.—Baltimore.—Macq. Dipt. Exot. 5e Suppl. p. 93, 1. Mem. de Lille, 1855, tab. v, fig. 4.

#### Mylota Meig.

Aepalius Walk.—Georgia.—Walker, List, etc. III, 557.
Anthreas Walk.—Trenton Falls.—Walker, List, etc. III, 556.

arcuata Say.—Mexico.—Say, J. Acad. Phil. VI, 162.

badia Walk.—New York.—Walker, List, etc. III, 559.
Baton Walk.—Florida, Nova Scotia.—Walker, List, etc. III, 554 (perhaps synon. with ejuncida?).

communis Walk.—Huds. Bay.—Walker, List, etc. III, 557.

ejuncida Say .--- Florida, Penna. (Say); Mass. (Harris Cat.). --- Say, American Entomology, I, tab. viii. Wied. Auss. Zwiefl. II, 100, 5.

flavifrons Walk.——Huds. Bay.——Walker, List, etc. III, 537.

haematodes Fabr. --- N. America (Wied.); Mass. (Harris Cat.); Carolina, N. Scotia, Georgia (Walk.). --- Fabr. Syst. Antl. p. 193, 21 (Milesia). Say, Amer. Entom. I, tab. viii. Wied. Auss. Zweifl. II, 99, 3. Macq. Dipt. Exot. II, 2, 73, 1, tab. xiii, fig. 4. Mém. de Lille, 1841, p. 133. Walker, List, etc. III, 553.

Libo Walk.—Nova Scotia.—Walker, List, etc. III, 556.

metallica Wied.—Georgia.—Wied. Auss. Zweifl. II, 102, 8.

Oarus Walk.—Trenton Falls.—Walker, List, etc. III, 558.

quadrata Say.——Penna.——Amer. Entom. I, pl. viii. Wied. Auss. Zweifl. II, 101, 6. Macq. Dipt. Exet. II, 272. Mém. de Lille, 1841, p. 142 (Tropidia).

#### Milesia Latr.

acuta Fab.—Carolina.—Fabr. Syst. Antl. p. 189, 7. Wied. Auss. Zweifl. II, 110, 8.

Amithaon Walk.——North Carolina ——Walker, List, etc. III, 567.

Ania Walk. -- Jamaica. -- Walker, List, etc. III, 564. Macq. Dipt. Exet. 5e Suppl. p. 94, 9. Mém. de Lille, 1855.

analis Macq. ——North America. ——Macq. Dipt. Exot. II, 2, 79, 1. Mém. de Lille, 1841, p. 139, 1, tab. xv, fig. 2.

analis Harris.——Cat. Ins. Mass.

Bacuntius Walk.—Georgia.—Walker, List, etc. III, 563.

Barda Say. — vid. Merodon Bardus.

crucigera Wied. - Florida, Georgia (Walk.); Cuba (Macq.). - Wied. Auss. Zweifl. II, 105, 2. Macq. Hist. Nat. Dipt. I, 500, 4. (Mallota milesiformis; synonymy by Macq. himself.) Macq. Dipt. Exot. II, 2, 60, 1. Mém. de Lille, 1841, p. 120, tab. x, fig. 7 (*Plagiocera*, n. gen.). Cenf. Macq. Dipt. Exet. 1er Suppl. p. 134. Mém. de Lille, 1844. p. 262. Walker, List, etc. III, 564.

excentrica Harris. -- New England. -- Harris, Ins. New. Engl. p. 488. gnava Harris. --- Cat. Ins. Mass.

ischiaca Harris.——Cat. Ins. Mass.

limbipennis Macq.——Amer. Sept.——Macq. Dipt. Exot. 4e Suppl. p. 147, 8. Mém. de Lille, 1849, p. 451, tab. xiv, fig. 3.

notata Wied.——Georgia, Carolina.——Wied. Auss. Zweifl. II, 109, 7. Macq. Dipt. Exot. II, 2, 80, 2. Mém. de Lille, 1841, p. 140, tab. xv. fig. 5.

obliqua Harris. --- Cat. Ins. Mass.

50 Syrphici.

ornata Fabr. ——North America (Fabr. Wied.); Pennsylvania, Missouri (musaeum nostrum); Massachusetts (Harris); Guadalupe (Macq.). ——Fabr. Syst. Antl. p. 188, 5. Wied. Auss. Zweifl. II, 106, 4. Macq. Dipt. Exot. II, 2, 81, 4, pl. xv, fig. 4. Mém. de Lille, 1841, p. 141. Drury, Illustr. II, pl. 37, fig. 6 (Musca virginiensis). Hausm. Ent. Bem. II, 67, 10 (Syrphus trifasciatus). Walker, List, etc. III, 560 (the synonymy is taken from Wiedem.).

ruficrus Wied. — Cuba. — Wied. Auss. Zweifl. II, 105, 3.

verbosa Harris. — Massachusetts. — Harris, Cat. Ins. Mass. Walker, List, etc. III, 568 (described).

#### Rhingia Scopoli.

nasica Say.——U. States (Say); Massachusetts (Harris Cat.); Nova Scotia, New York (Walk.).——Say, J. Acad. Phil. III, 94. Wied. Auss. Zweifl. II, 115, 1. Walker, List, etc. III, 570.

Psilota Meig.

flavidipennis Macq.—Philadelphia.—Macq. Dipt. Exot. 5e Suppl. 97, 2. Mém. de Lille, 1855, tab. v, fig. 5.

### Pipiza Fallen.

buccata Macq. ——Carolina. ——Macq. Dipt. Exot. II, 2, 107. Mém. de Lille, 1841, p. 167, tab. xviii, fig. 2.

#### Chrysogaster Meigen.

Antitheus Walk.—New York.—Walker, List, etc. III, 572. Apisaon Walk.—New York.—Walker, List, etc. III, 572. nitidus Wied.—North America.—Wied. Auss. Zweifl. II, 116, 1. recedens Walk.—U. States.—Walk. Dipt. Saund. III, 228. ruficornis Harris.—Cat. Ins. Mass.

#### Epistrophe Walk.

conjungens Walk.—U. States.—Walk. Dipt. Saund. III, 242, tab. vi, fig. 5.

#### Syrphus Lin.

adolescens Walk.——Huds. Bay, Nova Scotia.——Walker, List, etc. III, 584.

Aesyctes Walk.—Huds. Bay.—Walk. l. c. p. 591.

affinis Say.——Arkansas (Say); Huds. Bay (Walk.).——Say, J. Acad. Phil. III, 93, 9 (Scaeva). Wied. Auss. Zweifl. II, 117, 2. Walker, List, etc. III, 581.

Agnon Walk.—Nova Scotia, Iluds. Bay.—Walker, List, etc. III, 579. Alcidice Walk.—Iluds. Bay.—Walker, l. c. p. 579.

ambiguus Zett.—Greenland.—Zetterstedt, Ins. Lapponica. Stæger, Greenland's Antliater.

americanus Wied. ——N. America (Wied.); Huds. Bay (Walk.). —
Wied. Auss. Zweifl. II, 129, 22. Macq. Dipt. Exot. II, 2, 94, 12.
Mém. de Lille, 1841, p. 154. Walker, List, etc. III, 581.

SYRPHICI.

51

- Amissas Walk.—Georgia.—Walker, List, etc. III, 589.
- Antiphates Walk.—Jamaica.—Walker, List, etc. III, 589. angulatus Harris.—Cat. Ins. Mass.
- arcucinctus Walk .--- Huds. Bay .-- Walker, List, etc. III, 580.
- Bacchides Walk. -- Florida. -- Walker, List, etc. III, 594 (Sphaerophoria).
- Balyras Walk. -- New York. -- Walker, l. c. III, 577 (Doros).
- Boscii Macq.—Carolina.—Macq. Dipt. Exot. II, 2, 100, 23, tab. xvii, fig. 2. Mém. de Lille, 1841, p. 160.
- cingulatus Macq. -- Florida. -- Macq. Dipt. Exot. 4e Suppl. p. 155, 53. Mém. de Lille, 1849, p. 459.
- coalescens Walk.—North America.—Walker, Dipt. Saund. III, 237. contiguus Macq.—Philadelphia.—Macq. Dipt. Exot. 2e Suppl. p. 62, 4. Mém. de Lille, 1846, p. 78 (Sphaerophoria).
- concavus Say. Penna. (Say); Mass. (Harris Cat.); Nova Scotia, Huds. Bay, New York (Walker).—Say, J. Acad. Phil. III, 89, 3
- (Scaeva). Wied. Auss. Zweifl. II, 130, 24. Walker, List, etc. III, 581. Corbis Walk.——North America.——Walker, Dipt. Saund. III, 236.
- cylindricus Say. Philadelphia (Say); Mass. (Harris Cat.). Say, Amer. Entom. I, tab. xi. Wied. Auss. Zweifl. II, 138, 38.
- delineatus Macq. Mexico. Macq. Dipt. Exot. 1er Suppl. p. 139, 37. Mém. de Lille, 1844, p. 267, tab. xi, fig. 13.
- dimensus Walk.——North America.——Walker, Dipt. Saund. III, 235.
- dimidiatus Macq. -- Georgia. -- Macq. Hist. Nat. Dipt. I, 537, 10.
- dimidiatus Fab. --- West Indies. --- Fab. Ent. Syst. IV, 310, 118 (Syrphus). Syst. Antl. p. 254, 25 (Scaeva). Wied. Auss. Zweifl. II, 140, 42. diversipes Macq. —Newfoundland. —Macq. Dipt. Exot. 4e Suppl. p.
- 155, 54. Mém. de Lille, 1849, p. 459.
- ectypus Say. --- Nexico. --- Say, J. Acad. Phil. VI, 165, 3.
- emarginatus Say .---- Florida (Say); Huds. Bay (Walk.) .--- Say, J. Acad. Phil. III, 91, 5 (Scaeva). Wied. Auss. Zweifl. II, 119, 4. Walker, List, etc. III, 581.
- encaustus Harris. --- Cat. Ins. Mass.
- fuscanipennis Macq. ——Baltimore. ——Macq. Dipt. Exot. 5e Suppl. p. 95, 58. Mém. de Lille, 1855.
- geminatus Say .--- U. States (Say); Mass. (? Harris Cat.).-- Say, J. Acad. Phil. III, 92, 7 (Scaeva). Wied. Auss. Zweifl. II, 145, 50.
- geniculatus Macq. Newfoundland. Macq. Dipt. Exot. II, 2, 101, 24, tab. xvii, fig. 5. Mém. de Lille, 1841, p. 161.
- gracilis Meig. Europe (aut.); N. York (Walk.). Meigen, Macquart, etc. Walker, List, etc. III, 589.
- granditarsa Forster.—Europe (aut.); Huds. Bay (Walk.).—Forster, Fabr. Meig. (= Ocymi Meig. and lobatus Meig.) etc. Walker, List, etc. 111, 591.
- Gurges Walk .-- North America .-- Walker, Dipt. Saund. III, 236.
- guttatus Meig. Europe (aut.); Iluds Bay (Walk.). Meigen, Zetterstedt, etc. Walker, List, etc. III, 586.
- hieroglyphicus Meig.—Europe (aut.); Nova Scotia (Walk.).—Meigen, etc. Walker, List, etc. III, 593 (Sphaerophoria).

52 SYRPHICI.

```
perboreus Stæger. — Grænland. — Stæger, Grænland's Antliater.
interrogans Walk. — North America. — Walker, Dipt. Saund. III, 238.
lachrymosus Say (? not described in Say's works).——Harris, Cat. Ins.
```

- Mass.
- Iapponicus Zett.—Grænland.—Zetterstedt, Ins. Lapponica. Stæger, Grænl. Antliater.
- latrans Walk. --- Huds. Bay. --- Walker, List, etc. III, 575 (Cheilosia). Lesneurii Macq.——Philadelphia.——Macq. Dipt. Exot. II, 2, 92, 10. Mém. de Lille, 1841, p. 152.
- limbatus Fab. West Indies. Fab. Syst. Antl. p. 251, 10. Wied. Auss. Zweitl. II, 133, 30.
- maculosus Meig. Europe (antores); Huds. Bay (Walk.). Meigen, etc. Walker, List, etc. III, 588.
- marginatus Say.—U. States (Say); Mass. (? Harris Cat.).—Say, J. Acad. Phil. III, 92, 6 (Scaeva). Wied. Auss. Zweifl. II, 146, 52.
- menthastri Lin. Europe (aut.); Nova Scotia, Huds. Bay, New York (Walk.). - Linné, Fabricius, Meigen, etc. Walker, List, etc. III, 593 (Sphaerophoria).
- mutuus Say. -- Mexico. -- Say, J. Acad. Phil. VI, 164, 2.
- Naso Walk.—Huds. Bay.—Walker, List, etc. III, 587.
- obliquus Say. U. States (Say); Mass. (Harris Cat.). Say, J. Acad. Phil. III, 89, 2 (Scaeva). Amer. Ent. I, tab. viii. Wied. Auss. Zweifl. II, 138, 39.
- obscurus Say. ——Pennsylvania, Virginia (Say). ——Say, Amer. Ent. I, tab. xi. Wied. Anss. Zweifl. II, 131, 27.
- oestriformis Walk. —Huds. Bay. —Walker, List, etc. III, 573 (Cheilosia).
- Pacilus Walk. --- North America. --- Walker, Dipt. Saund. III, 240.
- philadelphicus Macq.—Philadelphia.—Macq. Dipt. Exot. II, 2, 93, 11. Mém. de Lille, 1841, p. 152, tab. xvi, fig. 2.
- politus Say.—Penna.—Say, J. Acad. Phil. III, 88, 1 (Scaeva). Amer. Ent. I, tab. xi (Syrphus). Wied. Auss. Zweifl. II, 132, 28.
- profusus Walk.—Georgia.—Walker, List, etc. III, 578. pulchellus Macq.—St. Domingo.—Macq. Dipt. Exot. 1er Suppl. p. 138, 36. Mém. de Lille, 1844, p. 266, tab. xi, fig. 12.
- quadratus Say. U. States, Massachusetts (Harris Cat.). Say, J. Acad. Phil. III, 90, 4 (Scaeva). Wied. Auss. Zweifl. II, 135, 32.
- Quintius Walk .-- North America. Walker, Dipt. Saund. III, 239.
- Radaca Walk. --- Florida. --- Walker, List, etc. III, 590.
- ribesii Fab.—Europe (aut.); Nova Scotia, Huds. Bay (Walk.); Am. Boreal. (Kirby). -- Fabricius, Meigen, etc. Walker, List, etc. III, 581.
- scalaris Fab. ——Europe (aut.); Ohio, New York, Trenton Falls (Walk.). ---Fabricius, Meigen, etc. Walker, List, etc. III, 588.
- scriptus Lin.—Europe (autores); Nova Scotia (Walk.).—Linné, Fabricins, Meigen, etc. Walker, List, etc. III, 592 (Sphaerophoria).
- securiferus Macq. Am. Sept. Georgia. Macq. Dipt. Exot. II, 2, 100, 22, and 1er Suppl. p. 139. Mém. de Lille, 1841, p. 160, tab. xvi, fig. 1, and 1844, p. 267.

- sexmaculatus Pal.—St. Domingo, Southern States.—Pal. Beauvois. Ins. p. 224. Dipt. tab. iii, fig. 8.
  - N. B. This species evidently belongs to some other genus.
- sexquadratus Walk.—Huds. Bay, Nova Scotia.—Walker, List, etc. III, 586.
- simulatus Harris.——Cat. Ins. Mass.
- stegnus Say. --- Mexico. --- Say, J. Acad. Phil. VI, 163, 1.
- strigatus Stæger. Grænland. Stæger, Grænland's Antliater (Sphaerophoria).
- tarsatus Zett.—Grænland.—Zetterstedt, insecta lapponica. Stæger, Grænland's Antliater.
- teretus Harris .- Cat. Ins. Mass.
- topiarius Meig.—Europe (aut.); Huds. Bay, New York (Walk.); Greenland (Stæger).—Meigen, Zetterstedt, etc. Stæger, Grænland's Antliater. Walker, List, etc. III, 582.
- umbellatarum Fab.—Europe (aut.); Nova Scotia (Walk.).—Fabricius, Meigen, Zetterstedt, etc. Walker, List, etc. III, 587.
- vittatifrons Harris. -- Cat. Ins. Mass.

### Ocyptamus Serv.

fuscipennis Macq.—Philadelphia.—Macq. Hist. Nat. Dipt. I, 554, 2, tab. xii, fig. 13.

### Sericomyia Meig.

- chrysotoxcides Macq.—Philadelphia.—Macq. Dipt. Exot. II, 2, 19, 1. Mém. de Lille, 1841, p. 79, tab. iii, fig. 3, bis.
- filia Walk. -- Huds. Bay, Nova Scotia. -- Walker, List, etc. III, 596.
- Iappona Lin.——Europe (aut.); Grænland (Fab.).——Linné, etc. O. Fabricius, Fauna Grænl. p. 208, 169.
- limbipennis Macq.—Nova Scotia.—Macq. Dipt. Exot. 2e Suppl. p. 58, 2. Mém. de Lille, 1846, p. 74 ("perhaps Q of S. Chrysotoxoides?" Macquart).
- militaris Walk. ——Huds. Bay, Nova Scotia. ——Walker, List, etc. III, 595. sexfasciata Walk. ——Huds. Bay. ——Walker, List, etc. III, 596.
- tuberculata Harris .-- Cat. Ins. Mass.

#### Tropidia Meig.

- albistylum Macq.—North America.—Macq. Dipt. Exot. 2e Suppl. p. 60, 1. Mém. de Lille, 1846, p. 76, tab. ii, fig. 10.

  N. B. Macquart also refers to this genus Xylota quadrota Say (vid.
  - Xylota).

### Polydonia Macq.

bicolor Macq. — Nova Scotia. — Macq. Dipt. Exot. 4e Suppl. p. 144, 1. Mém. de Lille, 1849, p. 448, tab. xiii, fig. 6.

#### Merodon Latr.

Balanus Walk .- New York .- Walker, List, etc. III, 600.

54 Syrphici.

Bardus Say.—New Hampshire (Walk.); Indiana (Say); Mass. (Harris Cat.).—Say, J. Acad. Phil. VI, 163 (Milesia). Walker, List, etc. III, 598.

Bautias Walk.—Georgia.—Walker, List, etc. III, 600.

bipartitus Walk. -- Georgia. -- Walker, List, etc. III, 599.

curvipes Wied.—North America (Wied.); Nova Scotia (Walk.); Mass. (Harris Cat.).—Wied. Auss. Zweifl. II, 149, 3. Walker, List, etc. III, 598.

morosus Walk.—Nova Scotia.—Walker, List, etc. III, 599.

posticatus Fab .- vid. Eristalis posticatus.

tudicornis Harris. -- Cat. Ins. Mass.

### Helophilus Meigen.

albiceps Macq. — Nova Scotia. — Macq. Dipt. Exot. 1er Suppl. p. 132, 9. Mém. de Lille, 1844, p. 260, tab. xi, fig. 7.

Anausis Walk.—Huds. Bay.—Walker, List, etc. III, 603.

apprensus Harris. --- Cat. Ins. Mass.

bilineatus Curtis.——America borealis.——Curtis, Ins. of Ross's Exp. p. lxxviii.

borealis Stäger. — Grænland. — Stäger, Kröyers Tidsskr. N. R. I, 359, 25. Lew, Monogr. Heloph. Stett. Entom. Zeit. VI, 123.

fasciatus Walk.——Huds. Bay.——Walker, List, etc. III, 605.

formalis Walk.—Mexico.—Walker, List, etc. III, 603.

glacialis Lœw.—Labrador.—Lœw, Monogr. Heloph. Stett. Ent. Zeit. VI, 121.

grænlandicus O. Fabr. — Grænland, Lapland. — O. Fabricius, Fauna Grænl. p. 208, 170 (*Tabanus*). Læw, Mon. Heloph. Entom. Zeit. VI. Zetterstedt, Ins. lapp. p. 595, 2. Dipt. Scand. II, 678, 2. Stäger, Kröyers Tidsskrift. N. R. I, 359, 24.

latro Walk.——Huds. Bay, Nova Scotia.——Walker, List, etc. III, 607.

mexicanus Macq.—Mexico.—Macq. Dipt. Exot. II, 2, 64, 6. Mém de Lille, 1841, p. 124, tab. xi, fig. 2.

Novæ Scotiæ Macq.—Nova Scotia.—Macq. Dipt. Exot. 2e Suppl. p. 60, 10. Mém. de Lille, 1846, p. 76.

similis Macq.——Georgia.——Macq. Dipt. Exot. II, 2, 64, 7. Mém. de Lille, 1841, p. 124.

stipatus Walk.——Trenton Falls.——Walker, List, etc. III, 602.

### Mallota Meig.

milesiformis Macq.—vid. Milesia crucigera Wied.

#### Eristalis Latreille.

albiceps Macq. ——Carolina. ——Macq. Dipt. Exot. II, 2, 56, 41. Mém. de Lille, 1841, p. 116.

Androclus Walk. -- Huds. Bay. -- Walker, List, etc. III, 612.

Bastardi Maeq. ——Amer. Sept. ——Maeq. Dipt. Exot. II, 2, 35, 7, tab. ix, fig. 1. Mém. de Lille, 1841, p. 95.

basilaris Macq.—North America.—Macq. Hist. Nat. Dipt. I, 502, 4.

SYRPHICI. 55

- chalepus Walk.—Canada.—Walker, Dipt. Saund. III, 247.
- chalybæus Macq.—Carolina.—Macq. Dipt. Exot. II, 2, 55, 39. Mém. de Lille, 1841, p. 115.
- chrysostomus Wied. Georgia. Wied. Auss. Zweifl. II, 174, 30.
- compactus Walk.—Huds. Bay.—Walker, List, etc. III, 619.
- cubensis Macq.—Havana.—Macq. Dipt. Exot. II, 2, 42, 19. Mém. de Lille, 1841, p. 102 (" Q of E. albifrons, or var. of annulipes?" Macq.). cupreovittatus Wied.—N. America.—Wied. Auss. Zweifl. II, 190, 54.
- decisus Walk.—Trenton Falls.—Walker, List, etc. III, 614.
- dimidiatus Wied.—Huds. Bay (Walk.); North America (Wied.).—Wied. Auss. Zweifl. II, 180, 41. Walker, List, etc. 111, 618.
- diminutus Walk.—Mexico.—Walker, List, etc. III, 622.
- Everes Walk. -- North America. -- Walker, Dipt. Saund. III, 246.
- fascicollis Harris. ——Cat. Ins. Mass.
- femoratus Macq. ——South America, Yucatan. ——Macq. Dipt. Exot. II, 2, 40, 15, tab. ix, fig. 6. Mém. de Lille, 1841, id. Dipt. Exot. 1er Suppl. p. 130. Mém. de Lille, 1844, p. 258, tab. ix, fig. 6.
- flavipes Walk.——Huds. Bay, Nova Scotia.——Walker, List, etc. III, 633. frater Walk.——Huds. Bay.——Walker, List, etc. III, 614.
- guadalupensis Macq. ——Guadaloupe. ——Macq. Dipt. Exot. II, 2, 32, 3. Mém. de Lille, 1841, p. 93.
- hortorum Fab.—West Indies (Fab.).—Fabr. Syst. Ent. p. 764, 11. Ent. Syst. IV, 286, 29 (Syrphus). Syst. Antl. p. 236, 16. Wied. Auss. Zweitl. II, 169, 24. Degeer, Ins. VI, 145, tab. xxix, fig. 1 (Musca surinamensis).
- incisuralis Macq. ——Amer. Sept. ——Macq. Dipt. Exot. 4e Suppl. p. 139, 64. Mém. de Lille, 1849, p. 443.
- inflatus Macq.—North America.—Macq. Hist. Nat. Dipt. I, 507, 18.
- inflexus Walk.——Huds. Bay, Nova Scotia.——Walker, List, etc. III, 617. intersistens Walk.——New York, Trenton Falls.——Walker, List, etc. III, 615.
- lateralis Walk.—Brazil, Chili, Guyana, Mexico, Jamaica.—Walker, Linn. Trans. XVII, 347, 42. List, etc. III, 622.
- L'herminieri Macq.——Carolina.—— Macq. Dipt. Exot. H, 2, 55, 38. Mém. de Lille, 1841, p. 115 ("var. of E. similis?")
- mexicanus Macq.—Mexico.—Macq. Dipt. Exot. 2e Suppl. p. 59, 54. Mém. de Lille, 1846, p. 75.
- nebulosus Walk.—New York, Huds. Bay, Nova Scotia.—Walker, List, etc. III, 616.
- niger Macq.—North America.—Macq. Hist. Nat. Dipt. I, 505, 15.
- pervagus Harr.—Massachusetts.—Harris, Catal. Ins. Mass. Walker, List, etc. III, 618 (description).
- philadelphicus Macq. ——Amer. Sept. ——Macq. Dipt. Exot. II, 2, 34, 6. Mém. de Lille, 1841, p. 94, tab. viii, fig. 4.
- pinguis Fab. Jamaica. Fab. Syst. Ent. p. 763, 6. Ent. Syst. IV. 282, 16 (Syrphus). Syst. Antl. p. 233, 6. Drury, Ins. I, 109, tab. xlv, fig. 6 (M. cineta). Wied. Auss. Zweifl. II. 193, 61.
- posticatus Fab. ——Carolina (Fab.); Mass. (!Harris Cat.). ——Fab. Syst. Antl. p. 237, 21. Wied. Auss. Zweifl. II, 194, 62 (Merodon!) Macq.

56 SYRPHICI.

> Dipt. Exot. II, 2, 68. Mém. de Lille, 1841, p. 128, tab. xii, fig. 2 (Imatisma, n. gen.).

pratorum Fab. ——W. Indies. ——Fab. Syst. Ent. p. 765, 13. IV, 286, 31 (Syrphus). Syst. Antl. p. 236, 18 (Eristalis).

pumilus Macq. — North America. — Macq. Dipt. Exot. II, 2, 57, 43. Mém. de Lille, 1841, p. 117.

pterelas Harris .- Cat. Ins. Mass.

saxorum Wied. ——Savannah (Wied.); Huds. Bay (Walk.); Mass. (Harris Cat.); Philad. (Macq.).—Wied. Auss. Zweifl. II, 158, 9. Macq. Dipt. Exot. II, 2, 33, 5. Mém. de Lille, 1841, p. 93. Walker, List, etc. III, 617.

semicirculus Walk. — Honduras. — Walker, Dipt. Saund. III, 249.

semimetallicus Macq. ——Nova Scotia, Canada. ——Macq. Dipt. Exot. 4e Suppl. p. 140, 65. Mém. de Lille, 1849, p. 444.

sincerus Harris. — Massachusetts. — Harris, Catal. Ins. Mass. Ins. of New Engl. p. 488. Walker, List, etc. III, 611 (" E. cupreovittatus? Wied.")

testaceicornis Macq. — Mexico. — Macq. Dipt. Exot. 4e Snppl. p. 138, 62. Mém. de Lille, 1849, p. 442.

transversus Wied .-- Nova Scotia, Huds. Bay, Ohio, Trenton Falls, Florida (Walk.); N. America (Wied.). --- Wied. Auss. Zweifl. II, 188, 51. Macq. Dipt. Exot. II, 2, 33, 4, tab. ix, fig. 12. Mem. de Lille, 1841, p. 93. Walker, List, etc. III, 618.

trifasciatus Say.——Indiana.——Say, J. Acad. Phil. VI, 165. uvarum Walk.——Jamaica.——Walker, List, etc. III, 623.

vinetorum Fab. --- West Indies (Fab.); Brazil (Wied. Walk. Macq.); Amer. Sept. Cuba (Macq.); Nova Scotia (Walk.).——Fab. Syst. Antl. p. 235, 13. Ent. Syst. Snppl. p. 562, 27. Wied. Auss. Zweifl. II, 163, 15. Macq. Dipt. Exot. II, 2, 41, 16. Mém. de Lille, 1841, p. 101. Walker, List, etc. III, 623.

vittatus Macq. --- North America. --- Macq. Hist. Nat. Dipt. I, 507, 19.

#### Volucella Geoffr.

abdominalis Wied.——Cuba.——Wied. Anss. Zweifl. II, 196, 2. Macq. Dipt. Exot. II, 2, 25, 8. Mém. de Lille, 1841, lère part. p. 85, 8.

basalis Harris.——Cat. Ins. Mass. esuriens Fab.——West Indies.——Fab. Ent. Syst. IV, 281, 10. Syst. Antl. p. 226, 9 (Syrphus). Wied. Anss. Zweifl. II, 197, 4.

evecta Walk.—U. States.—Walker, Dipt. Saund. III, 251. fasciata Macq.—Carolina.—Macq. Dipt. Exot. II, 2, 22, 2. Mém. de Lille, 1841, p. 83, tab. v, fig. 2.

Iata Wied. -- Mexico. -- Wied. Anss. Zweifl. II, 195, 1.

marginata Say .- Mexico. Say, J. Acad. Phil. VI, 166, 1.

metallifera Walk.—Mexico, Venezuela.—Walker, List, etc. III, 636. mexicana Macq. — Mexico. — Macq. Dipt. Exot. II, 2, 25, 10. Mém. de Lille, 1841, p. 85, tab. v, fig. 3.

obesa Fab. ——South America, West Indies (ant.), Asia, Africa (Macq.). —Fab. Syst. Ent. p. 763, 5. Ent. Syst. IV, 282, 15. Syst. Antl. p. 227, 14 (Syrphus). Wied. Auss. Zweifl. II, 199, 8. Macq. Hist.

- Nat. Dipt. I, 494, 5. St. Fargeau et Serv. Encycl. X, 786 (Ormidia obesa). Walker, Linu. Trans. XVII, 346, 41. List, etc. III, 637.
- plumata Fab. -- Europe (aut.); Newfoundland (Macq.). -- Fabricius, Meigen, etc. Macq. Dipt. Exot. 4e Suppl. p. 131. Móm. de Lille, 1849, p. 435.

- postica Say.—Mexico.—Say, J. Acad. Phil. VI, 166, 2. pusilla Macq.—Cuba.—Macq. Dipt. Exot. II, 2, 21, 1. Mém. de Lille, 1841, p. 81, tab. v, fig. 1.
- tibialis Macq. -- Yucatan. -- Macq. Dipt. Exot. 1er Suppl. p. 123, 14. Mém. de Lille, 1844, p. 251.
- vacua Fab. South America (Wied.); Florida, Georgia (Walk.).-Fab. Syst. Ent. p. 764, 4. Ent. Syst. IV, 281, 14. Syst. Antl. p. 227, 13 (Syrphus). Wied. Auss. Zweifl. II, 202, 13. Walker, List, etc. III, 637.
- vesiculosa Fab. --- North America (Macq.); South America (Wied.)-Wied. Auss. Zweifl. II, 201, 11. Macq. Dipt. Exot. 3e Suppl. p. 39. Mem. de Lille, 1847, p. 199, tab. iv, fig. 3.

violacea Say. --- Mexico. --- Say, J. Acad. Phil. VI, 166, 1.

### Fam. XV. PLATYPEZINÆ.

### Platypeza Meig.

appendiculata Harris. --- Cat. Ins. Mass.

### Fam. XVI. PIPUNCULI.

### Pipuncellus Latr.

lateralis Walk.——North America.——Walker, Dipt. Saund. III, 216. reipublicæ Walk.——New York.——Walker, List, etc. III, 639.

#### Fam. XVII. DOLICHOPODES.

#### Lyroneurus Low.

caerulescens Lew. Mexico. Lew, Wiener Entom. Monatschr. I, 39, tab. i, fig. 9, 10.

### Plagioneurus Lew.

univittatus Lew.—Cuba.—Lew, Wiener Entom. Monatschr. I, 43, tab. i, fig. 16, 17.

#### Psilopus Meig.

- albicoxa Walk .-- Ohio, Massachusetts, Nova Scotia .-- Walker, List, etc. III, 651.
- amatus Walk.—New York, Trenton Falls.—Walker, 1. c. p. 648. caudatus Wied.—Georgia.—Wied. Auss. Zweifl. II, 224, 23.
- chrysoprasi Walk. West Indies. Walker, List, etc. III, 646.
- delicatus Walk .-- New York .-- Walker, List, etc. III, 645.

Auss. Zweifl. II, 221, 17. Walker, List, etc. III, 642. femoratus Say.—Penna.—Say, J. Acad. Phil. III, 86, 5 (Dolichopus),

```
and VI, 168, 11. Wied. Auss. Zweifl. II, 226, 28.
gemmifer Walk.—Trenton Falls.—Walker, List, etc. III, 646.
guttula Wied. — Georgia. — Wied. Auss. Zweifl. II, 222, 18.
incisuralis Macq.—Yucatan.—Macq. Dipt. Exot. Suppl. p. 1, 120, 21.
    Mém. de Lille, 1844, p. 238, tab. xx, fig. 6.
inficitus Walk.—Mexico.—Walker, List, etc. III, 649.
lepidus Walk.—Mexico.—Walker, Dipt. Saund. III, 207.
longicornis Fab. --- W. Indies. --- Fab. Syst. Ent. p. 783, 52. Ent.
    Syst. IV, 341, 124. Syst. Antl. p. 269, 14. Wied. Auss. Zweifl. II,
    220, 14.
macula Wied.—W. Indies.—Wied. Auss. Zweifl. II, 219, 12.
mundus Wied.—Georgia.—Wied. Auss. Zweifl. II, 227, 30.
nigrifemoratus Walk.——Nova Scotia.——Walker, List, etc. III, 650.
pallens Wied.—New York.—Wied. Auss. Zweifl. II, 219, 11.
patibulatus Say .-- Florida, Mexico (Say) .-- Say, J. Acad. Phil. III,
    87, 7 (Dolichopus); VI, 168, 2. Wied. Auss. Zweifl. II, 225, 27.
portoricensis Macq. — Columbia, Porto-Rico. — Macq. Hist. Nat. Dipt.
    I, 450, 7. Dipt. Exot. II, 2, 121, 17, and 1er Suppl, p. 120. Mém. de
    Lille, 1841, p. 181, and 1844, p. 248.
radians Macq.—America Sept.—Macq. Hist. Nat. Dipt. I, 450, 6.
    Dipt. Exot. II, 2, 121, 18. Mém. de Lille, 1841, p. 181.
Sayi Wied. ——Penna. ——Wied. Auss. Zweifl. II, 219, 13. Say, J. Acad.
    Phil. III, 85, 2 (Dolichopus unifasciatus).
scutellatus Harris. -- Cat. Ins. Mass.
sipho Say.—U. States (Say); Cuba, Brazil (Macq.); Mass. (Harris Cat.)
    -Say, J. Acad. Phil. III, 84, 1 (Dolichopus). Wied. Auss. Zweifl.
    II, 218, 9. Macq. Dipt. Exot. II, 2, 119, 11, tab. xxi, fig. 1. Mém. de
    Lille, 1841, p. 179. Walker, List, etc. III, 642.
suavium Walk. —— Jamaica. —— Walker, List, etc. III, 648.
virgo Wied. - New York. - Wied. Auss. Zweifl. II, 224, 24.
                          Chrysotus Meig.
abdominalis Say.——Indiana.——Say, J. Acad. Phil. VI, 169, 3. concinnarius Say.——Mexico.——Say, J. Acad. Phil. VI, 168, 2.
incertus Walk .-- U. States .-- Walker, List, etc. III, 651.
nubilus Say. ——Indiana. ——Say, J. Acad. Phil. VI, 168, 1.
viridifemora Macq. ——North America. ——Macq. Dipt. Exot. 4e Suppl.
    p. 124, 2. Mém. de Lille, 1849, p. 428, tab. xii, fig. 3.
```

# Porphyrops Meigen.

pilosicornis Walk. —— Huds. Bay. —— Walker, List, etc. III, 653. quadriplagiatus Harris. ——Cat. Ins. Mass.

#### Medeterus Fischer.

alboflorens Walk.——Nova Scotia.——Walker, List, etc. III, 656. chrysologus Walk. -- Huds. Bay. -- Walker, l. c. p. 655.

```
exustus Walk.—North America.—Walker, Dipt. Saund. III, 211. glaber Walk.—Huds. Bay.—Walker, I. c. III, 655. lateralis Say.—Indiana.—Say, J. Acad. Phil. VI, 169, 1. punctipennis Say.—Mexico.—Say, J. Acad. Phil. VI, 170, 2. viridiflos Walk.—North America.—Walker, Dipt. Saund. III, 212.
```

```
Dolichopus Latreille.
abdominalis Say. ——Indiana. ——Say, J. Acad. Phil. VI, 170.
adjacens Walk --- Huds. Bay. --- Walker, List, etc. III, 661.
affinis Walk.—Nova Scotia.—Walker, List, etc. III, 659.
atricornis Harris. -- Cat. Ins. Mass.
bifrons Walk.—U. States.—Walker, Dipt. Saund. III, 212.
ciliatus Walk .-- Huds. Bay .-- Walker, List, etc. III, 661.
coercens Walk.—New York.—Walker, List, etc. III, 661. confinis Walk.—Huds. Bay.—Walker, l. e. p. 664. consors Walk.—U. States.—Walker, Dipt. Saund. III, 213.
conterminus Walk.—New York.—Walker, List, etc. III, 664. contingens Walk.—U. States.—Walker, Dipt. Saund. III, 213. contiguus Walk.—New York.—Walker, List, etc. III, 663.
cupreus Say. --- vid. D. cuprinus Wied.
cuprinus Wied. — Maryland, Virginia (Say); Huds. Bay (Walk.).-
    Wied. Auss. Zweifl. II, 230, 1. Say, J. Acad. Phil. III, 86, 6 (D. cu-
    preus). Walker, List, etc. III, 660.
diaphanus Fab. - W. Indies. - Fab. Ent. Syst. Suppl. p. 564, 126.
    Mant. p. 2, 349, 82. Syst. Antl. p. 270, 18.
discessus Walk.——Massachusetts.——Walker, List, etc. III, 662.
distractus Walk.—New York.—Walker, l. e. III, 662.
exclusus Walk.——Huds. Bay.——Walker, l. e. III, 663.
finitus Walk.—New York.—Walker, l. e. III, 662.
grænlandicus Zett.——Grænland.——Zetterstedt, Ins. Lapponica.
    ger, Grænland's Antliater.
hebes Walk.—U. States.—Walker, Dipt. Saund. III, 213.
heteroneurus Macq.—North America.—Macq. Dipt. Exot. 4e Suppl.
    p. 128, 5. Mém. de Lille, 1849, p. 432, tab. xii, fig. 10.
ineptus Walk.——U. States.——Walker, Dipt. Saund. III, 214.
irrasus Walk.——Florida.——Walker, List, etc. III, 667.
Iamellipes Walk.——Huds. Bay.——Walker, List, etc. III, 660.
maculipes Walk.—U. States.—Walker, Dipt. Saund. III, 214.
obscurus Say.——Penna.——Say, J. Acad. Phil. III, 85, 4. Wied. Auss.
    Zweifl. II, 232, 6.
pulcher Walk.—U. States.—Walker, Dipt. Saund. III, 215.
remotus Walk.—North America.—Walker, List, etc. III, 666.
separatus Walk.——Huds. Bay.——Walker, l. c. III, 665.
sequax Walk. -- Huds. Bay. -- Walker, l. c. III, 666.
sipho Say.—vid. Psilopus sipho.
soccatus Walk. -- Huds. Bay. -- Walker, List, etc. III, 666.
terminatus Walk. ——North America. ——Walker, List, etc. III, 665.
unifasciatus Say. —vid. Psilopus Sayi Wied.
varius Walk .-- U. States .-- Walker, Dipt. Saund. III, 215.
```

#### Orthochile Latr.

derempta Walk .-- North America .-- Walker, List, etc. III, 667.

### Fam. XVIII. CONOPSARIÆ.

### Conops Linn.

æthiops Walk. --- North America. --- Walker, List, etc. III, 671.

analis Fab. ——Carolina (Macq.); South America (Fab.). ——Fab. Syst.
 Autl. p. 175, 3. Wied. Auss. Zweifl. II, 237, 5. Macq. Dipt. Exot.
 II, 3, 14, 12. Mém. de Lille, 1842, p. 171, tab. i, fig. 3.

brachyrhynchus Macq.——Amer. Sept.——Macq. Dipt. Exot. II, 3, 15, 13. Mém. de Lille, 1842, p. 172, tab. i, fig. 8.

bulbirostris Læw.—North America (Læw in litt.).—Læw, Neue Beitr. etc. Conops, p. 30.

castanopterus Lew.——Savannah.——Lew, Nene Beitr. etc. Conops, p. 33.

costatus Fab. — Amer. merid. (Fab.); Carolina (Macq.). — Fab. Syst.
 Antl. p. 175, 4. Wied. Auss. Zweifl. II, 238, 6. Macq. Dipt. Exot.
 II, 3, 14, 11. Mém. de Lille, 1842, p. 171, tab. i, fig. 4.
 ezcisus Wied. — Georgia. — Wied. Auss. Zweifl. II, 234, 1, and 236, 3

excisus Wied.—Georgia.—Wied. Auss. Zweifl. II, 234, 1, and 236, 3 (*C. excisa* Q and *C. sugens* Q). Low, Neue Beitr. etc. Conops. (1853), p. 28.

flaviceps Macq.—North America.—Macq. Dipt. Exet. II, 3, 15, 14. Mém. de Lille, 1842, p. 172.

falvipennis Macq. — Georgia. — Macq. Dipt. Exot. II, 3, 13, 10. Mém. de Lille, 1842, p. 170, tab. i, fig. 9.

genualis Lew.—Kentucky.—Lew, Neue Beitr. etc. Conops. p. 32. interruptus Harris.—Cat. Ins. Mass.

marginatus Say. — Missouri. — Say, J. Acad. Phil. III, 82, 1. Wied. Auss. Zweifl. II, 240, 9. Lew, Neue Beitr. etc. Conops. p. 34.

nigricornis Wied. --- vid. Sagittaria.

pictus Fab. ——Sonth America (Wied.); Carolina (Macq.); West Indies (Fab.). ——Fab. Ent. Syst. IV, 391, 3. Syst. Antl. p. 176, 5. Wied. Auss. Zweifl. II, 239, 7. Macq. Dipt. Exot. 1, 3, 13, 9. Mém. de Lille, 1842, p. 170, tab. i, fig. 3.

sagittarius Say. — Penna. (Say); Nova Scotia (Walk.); Mass. (Harris Cat.). — Say, J. Acad. Phil. III, 83, 2. Wied. Auss. Zweifl. II, 236, 4 (C. nigricornis). Walker, List, etc. III, 671. Lœw, Neue Beiträge, etc. Conops. (1853), p. 31.

tibialis Say. --- Indiana. --- Say, J. Acad. Phil. VI, 171.

### Zodion Fab.

abdominale Say.—Rocky Mountains.—Say, J. Acad. Phil. III, 84, 2. Wied. Auss. Zweifl. II, 242, 2.

N. B. Perhaps this species belongs to G. Myopa?

fulvifrons Say .-- vid. Myopa fulvifrons.

occidentis Walk. —Ohio. —Walker, List, etc. III, 676.

### Nayopa Latreille.

americana Wied. -- North America (Walk.); Montevideo (Wied.). --Wied. Auss. Zweifl. II, 242, 3 (Zodion). Walker, List, etc. III, 678. apicalis Walk.—North America.—Walker, List, etc. III, 679.

biannulata Say .-- vid. M. stylata Fab.

bistria Walk. --- North America. --- Walker, List, etc. III, 679.

fulvifrons Say. — Maryland, Penna. (Say); Georgia (Walk.). — Say, J. Acad. Phil. III, 83, 1 (Zodion). Wied. Auss. Zweifl. II, 241, 1 (Zodion). Walker, List, etc. III, 678. ("Syn. Myopa rubifrons Rob. Desvoidy. Ess. Myod. p. 247, 17." Walker.)

longicornia Say. -- Missouri. -- Say, J. Acad. Phil. III, 81, 2. Wied. Auss. Zweifl. II, 245, 4.

nigripennis Gray .-- vide genus Oxycephala.

obliquefasciata Macq. — Texas. — Macq. Dipt. Exot. 1er Suppl. p. 141, 1. Mém. de Lille, 1844, p. 269.

rubifrons Desv. ——Philad. ——R. Desvoidy. Myodaires, p. 247.

stylata Fab. — Penna. (Say); Amer. merid. (aut.). — Fab. Syst. Antl. 177, 11 (Conops). Say, J. Acad. Phil. III, 81, 3 (M. biannulata). Wied. Auss. Zweifl. II, 243, 2. Macq. Dipt. Exot. II, 3, 17. Mém. de Lille, 1842, p. 174, tab. ii, fig. 3 (Stylogaster, n. g.).

vesiculosa Say.—Penna. (Say); Mass. (Harris Cat.).—Say, J. Acad. Phil. III, 80, 1. Wied. Auss. Zweifl. II, 245, 3.

vicaria Walk. --- Nova Scotia. --- Walker, List, etc. III, 679.

#### Fam. XIX. STOMOXYDÆ.

### Stomoxys Geoff.

calcitrans Lin. -- Europe (aut.); North America (Harris). -- Linné, Meigen, etc. Harris, Ins. of New England, etc. p. 491. Fitch, Survey of Washington Co. N. Y. p. 803.

Cybira Walk. ——Nova Scotia. ——Walker, List, etc. IV, 1159 (Addenda). dira Desv. ——North America. ——R. Desvoidy, Myod. p. 387, 8.

inimica Desv.——North America.——R. Desvoidy, Myod. p. 387, 6. pallida Harris.——Cat. Ins. Mass.

parasita Fab. -- North America. -- Fab. Ent. Syst. IV, 394, 3. Syst. Antl. p. 280, 3. Wied. Auss. Zweifl. II, 252, 11.

### Prosena St. Fargeau et Serv.

mexicana Macq. - Mexico. - Macq. Dipt. Exot. 4e Suppl. p. 231. Mém. de Lille, 1850, p. 204, tab. xxi, fig. 12.

### Fam. XX. OESTRACIDÆ.

#### Cuterebra Clark.

americana Fab. -- Nova Scotia (Walk.); West Indies (Fab.). -- Fab. Syst. Ent. p. 774, 6. Ent. Syst. IV, 315, 14. Syst. Antl. p. 288, 21

- (Musca). Wied. Auss. Zweifl. II, 258, 3 (Trypoderma). Macq. Dipt. Exot. II, 3, 23, 5. Mém. de Lille, 1842, p. 180. Walker, List, etc. III, 683. Clark, Ess. on Bots, p. 70, tab. ii, fig. 3 (Cuterebra cauterium).
- buccata Fab. N. America, Carolina (Fab.); Mass. (Harris Cat.) —
  Fab. Mant. Ins. p. 305, 1. Ent. Syst. IV, 230, 1. Syst. Antl. 227, 1 (*Oestrus*). Clark, Essai, etc. p. 70, 4, tab. ii, fig. 29 (*C. purivora*). Wied. Auss. Zweifl. II, 259, 4 (*Trypoderma*). Olivier, Encyl. Méth. VIII, p. 464. Macq. Hist. Nat. Dipt. II, 47, 2.
- cauterium Clark. vid. C. americana.
  cuniculi Clark. Georgia (Clark); Mass. (Harris Cat.). Clark,
  Trans. Lin. Soc. III, 299. Essai on Bots, p. 70, 1, tab. ii, fig. 26.
  Fab. Syst. Antl. p. 230, 9 (Oestrus). Wied. Auss. Zweifl. II, 256, 1 (Trypoderma). Olivier, Encyc. Meth. VIII, p. 464, 2. Macq. Hist. Nat. Dipt. II, 47, 1, tab. xiii, fig. 17.
- horripilum Clark.—Nova Scotia (Walk.).—Clark, Ess. on Bots, p. 70, tab. ii, fig. 27. Wied. Auss. Zweifl. II, 257, 2 (*Trypoderma*). Walker, List, etc. III, 683.
- purivora Clark.—vid. C. buccata.
- terrisona Walk. Guatimala. Walker, List, etc. III, 683.

#### Oestrus Linn.

- bovis Fab.——Europe (aut.); New York (Fitch).——Fabricius, Meigen, Clark, etc. A. Fitch, Survey of Washington Co. N. Y. p. 799.
- ovis Lin.—Europe (ant.); Georgia (Walk.).—Linné, Fabricius, Meigen, etc. Fitch, Survey, etc. p. 800 (Cephalemyia). Walker, List, etc. III, 683.
- phobifer Clark. Georgia. Clark, Essai on Bots, tab. ii, fig. 30. Wied. Auss. Zweifl. II, 255, 1. Macq. Dipt. Exot. II, 3, 25, 5. Mém. de Lille, 1842, p. 182, tab. ii, fig. 8.
- supplens Walk.—Nova Scotia.—Walker, List, etc. III, 685.
- tarandi Lin.—Europe (aut.); Amer. Bor. (Palisot).—Linné, Meigen, Clark, etc. Macq. Dipt. Exot. II, 3, 25. Mém. de Lille, 1842, p. 182 (Oedemagena; only quoted, as being found in America by Palisot).

#### Gastrus Meigen.

- equi Lin.—Europe (aut.); North America (Walk.).—Linné, Fabricius, Meigen, Clark, etc. Fitch, Survey of Washington Co. N. Y. p. 799 (*Oestrus*). Walker, List, etc. III, p. 685. Harris, Ins. of New Engl. p. 500.
- haemorrhoidalis Lin.—Europe (aut.); New England (Harris).— Linné, Fabricius, Meigen, etc. Harris, Ins. of New. Engl. p. 500.
- nasalis Lin.—Europe (aut.); New York (Fitch).—Linné, Meigen, etc. Fitch, Survey, etc. p. 799 (Oestrus).
- pecorum Fab.—Europe (aut.); Jamaica (Walk.).—Fabricius, Meigen, etc. Walker, List, etc. III, 686.
- subjacens Walk.——North America.—Walker, List, etc. III. 687.
- veterinus Green.——North America.——Green, Nat. Hist. of the Horse Bee, in Adams's Medical and Agricultural Register, Vol. I, p. 53. New England Farmer, Vol. IV, p. 345. Harris, Ins. New Engl. p. 500. (Is that the European G. veterinus Fab. = G. nasalis Lin.?)

### Fam. XXI. MUSCIDÆ.

#### Phasia Latr.

atra Desv.—Carolina.—R. Desvoidy, Myod. p. 288, 2 (Clytia). atripennis Say.—Indiana.—Say, J. Acad. Phil. VI, 172, 1. jugatoria Say.—Indiana (Say); Mass. (Harris Cat.).—Say, J. Acad. Phil. VI, 172, 2 (belongs to G. Trichopoda, according to Harris). occidentis Walk.—U. States.—Walker, Dipt. Saund. IV, 260 (Hyalomyia).

### Gymnosoma Meig.

fuliginosa Desv.—Carolina.—Rob. Desvoidy, Myodaires, p. 237. immaculata Macq.—Carolina.—Macq. Dipt. Exot. II, 3, 76, 1. Mém. de Lille, 1842, p. 233, tab. viii, fig. 7 (Cistogaster). occidua Walk.—Nova Scotia.—Walker, List, etc. IV, 692. par Walk.—Nova Scotia.—Walker, List, etc. IV, 692. rotundata Linné.—Europe (aut.); Mass. (Harris Cat.).

## Ocyptera Latr.

arcuata Say. — Indiana. — Say, J. Acad. Phil. VI, 173.
aurata Desv. — Philadelphia. — R. Desvoidy, Myod. p. 226 (Hemyda).
carolinae Rob. Desv. — Carolina. — R. Desvoidy, Myod. p. 232 (Parthenia). Macq. Dipt. Exot. II, 3, 75. Mem. de Lille, 1842, p. 232.
Dosiades Walk. — Nova Scotia. — Walker, List, etc. IV, 695.
Dotadas Walk. — Jamaica. — Walker, List, etc. IV, 694.
Epytus Walk. — Georgia. — Walker, List, etc. IV, 694.
Euchenor Walk. — Massachusetts, Newfoundland. — Walker, List, etc. IV, 696.
galerucae Harris. — Cat. Ins. Mass.
lateralis Harris. — Cat. Ins. Mass.
liturata Oliv. — Carolina. — Olivier, Encyclop. Méthod. VIII, 423, 1.
triquetra Oliv. — Carolina. — Olivier, Encyclop. Méthod. VIII, 423, 2.
R. Desvoidy, Myodaires, p. 225 (Ervia).

#### Miltogramma Meig.

trifasciata Say .-- Indiana .-- Say, J. Acad. Phil. VI, 174.

#### Trichopoda Latr.

ciliata Fab.—Carolina (Macq.); South America (Fab.).—Fab. Syst.
Antl. p. 315, 9 (Ocyptera). Wied. Auss. Zweifl. II, 273, 8. Macq.
Dipt. Exot. II, 3, 77, 2. Mém. de Lille, 1842, p. 234, tab. ix, fig. 1.
cilipes Wied.—Carolina.—Fab. Syst. Antl. p. 219, 8 (Thereva pennipes. Wied. changed the name). Wied. Auss. Zweifl. II, 276, 11.
flavicornis Desv.—Carolina.—R. Desvoidy, Myod. p. 284.
formosa Wied.—Georgia.—Wied. Auss. Zweifl. II, 268, 1. Macq.
Ilist. Nat. Dipt. II, 194, 1, tab. xv, fig. 8.
haitensis R. Desv.—St. Domingo.—Desvoidy, Myod. p. 285, 7.

- hirtipes Fab.—Carolina.—Fab. Syst. Antl. p. 219, 9 (Thereva). R. Desvoidy, Myod. p. 284. Wied. Auss. Zweifl. II, 276, 12.
- lanipes Fab. ——Georgia. ——Fab. Syst. Antl. p. 220, 10 (Thereva). Wied. Auss. Zweifl. II, 270, 4. Desvoidy, Ess. Myod. p. 284, 5. Walker, List, etc. 1V, 696.
- mexicana Macq. Mexico. Macq. Dipt. Exot. 1er Suppl. p. 172, 3. Mém. de Lille, 1844, p. 300.
- pennipes Fab. Florida, Georgia. Fab. Ent. Syst. IV, 348, 149 (Musca). Syst. Antl. p. 327, 5 (Dictya). Wied. Auss. Zweifl. II, 274, 9. Desvoidy, Ess. Myod. p. 283, 1. Walker, List, etc. IV, 696.
- plumipes Fab. Carolina. Fab. Syst. Antl. p. 220, 11 (Thereva). Wied. Auss. Zweifl. II, 277, 13. Desvoidy, Myod. p. 285, 6.

### Senotainia Macq.

rubriventris Macq. — Texas. — Macq. Dipt. Exot. 1er Suppl. 167, 1. Mém. de Lille, 1844, p. 295, tab. xx, fig. 8.

### Blepharipeza Macq.

- rufipalpis Macq.—Cuba, Mexico.—Macq. Dipt. Exot. II, 3, 55, 1. Mém. de Lille, 1842, p. 212, 1, tab. vi, fig. 1.
- bicolor Macq.—Texas.—Macq. Dipt. Exot. 1er Suppl. 158, 4. Mém. de Lille, 1844, p. 286, 4, tab. xx, fig. 7.

#### Tachina Fab.

- abrupta Wied.——North America.——Wied. Auss. Zweifl. II, 293, 22. addita Walk.—U. States.—Walker, Dipt. Saund. 1V, 290.
- Aelops Walk.——Georgia.——Walker, List, etc. IV, 796.
- albifrons Walk.——U. States.——Walker, Dipt. Saund. IV, 283.
- algens Wied. --- North America (Wied.); Mass. (Harris Cat.); N. Scotia, Huds. Bay (Walk.).—Wied. Auss. Zweifl. II, 285, 8. Walker, List, etc. 1V, 723.
- albinoisa Wied.——St. Thomas.——Wied. l. c. p. 334, 98.
- ambigua Macq. -- Mexico. -- Macq. Dipt. Exot. 4e Suppl. p. 172, 9. Mém. de Lille, 1850, p. 145 (*Hystricia*).
- americana Macq. Philadelphia. Macq. Hist. Nat. Dipt. II, 173, 14 (Ptilocera).
- amethystina Macq. -- Georgia, Venezuela. -- Macq. Dipt. Exot. II, 3, 42, 9, and 1er Suppl. p. 147. Mém. de Lille, 1842, p. 199, tab. iii, fig. 7, and Mém. de Lille, 1844, p. 275 (Furinia).
- amoena Macq. Mexico. Macq. Dipt. Exot. II, 3, 44, 2. Mém. de Lille, 1842, p. 201 (Hystricia).
- Ampelus Walk.——Nova Scotia.——Walker, List, etc. IV, 732. analis Macq.——Brasilia, Mexico.——Macq. Dipt. Exot. II, 3, 39, 1. Mém. de Lille, 1842, p. 196, tab. iii, fig. 8 (Furinia).
- analis Macq. Mexico. Macq. Dipt. Exot. II, 3, 34, 3. Mém. de Lille, 1842, p. 191, tab. iii, fig. 3 (Dejeania).
- analis Rob. Desv.--vid. picea.
- Anaxias Walk.——Nova Scotia.——Walker, List, etc. IV, 726.

```
ancilla Walk.—U. States.—Walker, Dipt. Saund. IV, 299.
antennata Walk.——U. States.——Walker, Dipt. Saund. IV, 298.
apicifera Walk.—N. America.—Walker, List, etc. IV, 718 (Jurinia).
Areos Walk.—N. America.—Walker, List, etc. IV, 766 (Lydella).
armata Wied.—Cuba.—Wied. Auss. Zwiefl. II, 287, 11.
aterrima Desv.—U. States.—R. Desvoidy, Myodaires, p. 36 (Jurinia).
atra Walk .-- Georgia .-- Walker, Dipt. Saund. IV, 273.
basalis Walk.——Jamaica.——Walker, List, etc. IV, 713.
basifulva Walk. — Jamaica. — Walker, List, etc. IV, 725 (Echinomyia).
bicincta Desv.—vid. T. bifasciata.
bifasciata Fab.—W. Indies (Fab.); Carolina, Virginia, Brazil (Desv.);
    Philadelphia (Macq.).—Fab. Syst. Entom. p. 777, 19 (Musca). Ent.
    Syst. IV, 325, 53 (id.). Syst. Antl. p. 299, 78. Latreille, Dict. d'Hist.
    Nat. XXIV, 195, 373 (Ocyptera). Wied. Auss. Zweifl. II, 305, 44.
    Rob. Desvoidy, Myodaires, p. 104, 19, and 103, 1. (Belvoisia bicincta
    and Latreillia bifasciata.) Macq. Hist. Nat. Dipt. II, 104, 19 (Ne-
    morea). Dipt. Exot. II, 3, 57, 1. Mém. de Lille, 1842, p. 214, tab.
    vi, fig. 2 (Belvoisia). Walker, List, etc. IV, 764 (Latreillia).
Boscii Desv.——U. States.——R. Desvoidy, Myodaires, etc. p. 36 (Ju-
    rinia).
botyvora Desv.——Cuba.——R. Desvoidy, Myodaires, p. 138 (Phorocera).
breviventris Wied. — Jamaica. — Wied. Auss. Zweifl. II, 297, 28.
    Walker, List, etc. IV, 712.
californiae Walk. --- California. -- Walker, Dipt. Saund. IV, 270.
californiensis Macq. — California. — Macq. Dipt. Exot. 4e Suppl.
    p. 175, 18. Mém. de Lille, 1850, p. 148 (Micropalpus).
candens Walk. --- Nova Scotia. --- Walker, List, etc. IV, 720 (Jurinia).
claripennis Macq. ——North America. ——Macq. Dipt. Exot. 3e Suppl.
    p. 49, 10. Mém. de Lille, 1847, 2e part. p. 209, tab. v, fig. 8 (Pho-
    rocera).
Clesides Walk.—North America.—Walker, List, etc. IV, 757.
conica Harris. ——Cat. Ins. Mass.
contraria Walk. ——Mexico. ——Walker, List, etc. IV, 716 (Jurinia).
convecta Walk.—U. States.—Walker, Dipt. Saund. 1V, 277.
corpulenta Wied. -- Mexico (Wied.); Bogota (Macq.). -- Wied. Auss.
    Zweifl. II, 280, 1. Macq. Hist. Nat. Dipt. II, 77, 22. Dipt. Exot.
    II, 3, 35, 4. Mém. de Lille, 1842, p. 192 (Dejeania).
Corythus Walk. —Georgia —Walker, List, etc. IV, 797 (Illigeria).
crudelis Wied. — West Indies. — Wied. Auss. Zweifl. II, 300, 35.
cubensis Macq. — Cuba. — Macq. Dipt. Exot. 3e Suppl. p. 46, 13.
    Mém. de Lille, 1847, 2e part. p. 207, tab. v, fig. 5 (Masicera).
decisa Walk. ——Huds. Bay, Nova Scotia. ——Walker, List, etc. IV, 715
    (Jurinia).
degenera Walk.——Huds. Bay.——1. c. p. 733.
Demylus Walk. --- North America (?) --- l. c. p. 779 (Phorocera).
disjuncta Wied. -- North America. -- Wied. Anal. Ent. p. 45, No. 88.
    Auss. Zweifl. II, 295, 24.
distincta Wied — West Indies. — Wied. Anal. p. 45, No. 83. Auss.
    Zweifl, II, 334, 99.
```

5

```
distincta Desv. — Philadelphia. — R. Desv. Myod. p. 54 (Linnemyia).
distincta R. Desv.—Europe, Philadelphia.—R. Desv. Myod. p. 273
    (Melanophora).
Dydas Walk.—Huds. Bay.—Walker, List, etc. IV, 748.
Epicydes Walk. ——Huds. Bay. ——Walker, List, etc. IV, 786 (Aplomyia).
epileuca Walk .- Jamaica .- Walker, List, etc. IV, 716 (Jurinia).
errabunda Harris. --- Cat. Ins. Mass.
exul Walk .-- U. States .-- Walker, Dipt. Saund. IV, 277.
finitima Walk.——Nova Scotia, U. States.——Walker, List, etc. IV, 707.
flavitarsis Guérin.—Mexico.—Macq. Dipt. Exot. II, 3, 47, 3.
    de Lille, 1842, p. 204, tab. v, fig. 1 (Micropalpus).
florum Walk.——Huds. Bay, Nova Scotia.——Walker, List, etc. IV, 722. futilis Harris.——Cat. Ins. Mass.
georgica Macq. ——Georgia. ——Macq. Hist. Nat. Dipt. II, 79, 31.
grisea Desv.——North America.——R. Desvoidy, Myod. p. 131 (Araba).
Helymus Walk. —- Maine. —- Walker, List, etc. IV, 795 (Illigeria).
hirta Drury. — Jamaica. — Drury, Ins. p. 109, tab. xIv, fig. 4. Harris,
    Cat. Ins. Mass. ( = vivida Harris?).
hirta Curtis.——Amer. Borealis.——Curtis, Ius. Ross. Exp. p. lxxix.

Hybreas Walk.——Iluds. Bay.——Walker, List, etc. IV, 785 (Aplomyia).
hystrix Fab.——Huds. Bay, N. Scotia (Walk.); Kentucky (Wied.).——
    Fabricius, Syst. Ent. p. 777, 21 (Musca). Ent. Syst. IV, 325, 55 (id.).
    Syst. Antl. p. 310, 8 (Tachina). Drury, Ins. I, pl. xlv, fig. 7 (M. pi-
    losa). Olivier, Encycl. Méthod. VIII, 22, 59 (Musca). Wied. Auss.
    Zweifl. II, 283, 6. Macq. Hist. Nat. Dipt. II, 79, 30 (Echinomyia).
    Walker, List, etc. IV, 712 (Jurinia).
incauta Harris.——Cat. Ins. Mass.
insolita Walk. -- U. States. -- Walker, Dipt. Saund. IV, 277, tab. vii,
    fig. 2.
interrupta Walk.——Georgia.——l. c. IV, 295.
irrequieta Walk. -- N. Scotia. -- Walker, List, etc. IV, 789 (Aplomyia).
iterans Walk.—N. Scotia.—Walker, List, etc. IV, 727 (Echinomyia).
Lapilaei Desv.——Newfoundland.——R. Desvoidy, Myod. p. 44 (Echi-
    nomyia).
Leschenaldi Desv.—N. America.—R. Desv. Myod. p. 42 (Peleteria). lateralis Macq.—North America.—Macq. Dipt. Exot. 3e Suppl. p. 48,
    2. Mém. de Lille, 1847, p. 208, tab. v, fig. 6 (Degeeria).
Iateralis Macq. — Mexico. — Macq. Dipt. Exot. II, 3, 42, 8. Mém. de
    Lille, 1842, p. 199, tab. iii, fig. 10 (Jurinia).
lateralis Macq. ——America (North). —— Macq. Dipt. Exot. 3e Suppl.
    p. 48, 2. Mém. de Lille, 1842, p. 228, tab. viii, fig. 3 (Scopolia).
lepida Desv.——Cuba.——Desvoidy, Myod. p. 153 (Zenillia).
leucostoma Desv.——N. America.——Desvoidy, Myod. p. 37 (Jurinia).

Masurius Walk.——North America.——Walker, List, etc. IV, 753.
Mella Walk.—Nova Scotia.—Walker, List, etc. IV, 767 (Lydella).
Melobosis Walk.——Florida.—Walker, List, etc. IV, 743.
metallica Desv. — Carolina. — R. Desvoidy, Myodaires, etc. p. 35
     (Jurinia).
nigripes Desv. —— N. America. —— R. Desvoidy, l. c. p. 58 (Marshamia).
```

```
noctuae Harris. -- Cat. Ins. Mass.
obconica Walk.—U. States.—Walker, Dipt. Saund. IV, 296.
obesa Harris.——Cat. Ins. Mass. (Echinomyia).
occidentalis Wied.—St. Thomas.—Wied. Auss. Zweifl. II, 335.
ornata Macq.—Mexico, Columbia.—Macq. Dipt. Exot. II, 3, 48, 4.
     Mém. de Lille, 1842, p. 204, tab. iv, fig. 6 (Micropalpus).
Panaetius Walk.——Nova Scotia.——Walker, List, etc. IV, 767 (Lydella).
Pansa Walk. --- Nova Scotia. --- Walker, List, etc. IV, 787 (Aplomyia).
pictipennis Macq.—Philadelphia.—Macq. Dipt. Exot. II, 3, 67, 1,
    tab. vii, fig. 5. Mém. de Lille, 1842, p. 224 (Sericocera).
plagiata Harris.——Cat. Ins. Mass.
picea R. Desv. --- Nova Scotia (Macq.). --- Robineau, Desvoidy, Myo-
    daires, p. 44 (Fabricia). Macq. Dipt. Exot. II, 3, 37, 2. Mém. de
    Lille, 1842, p. 194, tab. iii, fig. 4 (Echinomyia).
picea Macq. -- Carolina. -- Macq. Hist. Nat. Dipt. II, 84 11 (Micro-
    palpus). Rob. Desv. Myod. p. 58 (Marshamia analis).
prisca Walk.——Nova Scotia.——Walker, List, etc. IV, 780 (Phorocera).
punctifera Walk. — Massachusetts. — Walker, List, etc. IV, 728 (Echi-
    nomyia).
pusilla Wied.—West Indies.—Wied. Auss. Zweifl. II, 337, 104.
Pyste Walk.—Nova Scotia.—Walker, List, etc. 1V, 754. roralis Lin.—Europe (aut.); Grænland (Fab.).—Linné, Meigen, etc.
    (Melanophora). O. Fabricius, Fauna Greenl.
rubrella Desv.——St. Domingo.——R. Desvoidy, Myod. p. 179 (Carcellia).
rubidapex Harris.——Cat. Ins. Mass.
rufipalpis Macq. — Mexico. — Macq. Dipt. Exot. II, 3, 35, 5. Mém. de
    Lille, 1842, p. 193, tab. iii, fig. 1 (Dejeania).
saltatrix Wied.—West Indies.—Wied. Auss. Zweifl. II, 300, 36. signifera Walk.—Nova Scotia.—Walker, List, etc. IV, 708.
speculifera Walk.—North America.—l. c. p. 731.
stygia Harris. ——Cat. Ins. Mass. (Melanophora).
subvaria Walk.—West Indies.—Walker, Dipt. Saund. IV, 299.
tessellata Fab.——Harris, Cat. Ins. Mass.
testacea Macq.——North America.——Macq. Dipt. Exot. II, 44, 3. Mém.
    de Lille, 1842, p. 202, tab. iv, fig. 4 (Hystricia).
Theutis Walk.—N. Scotia.—Walker, List, etc. IV, 778 (Phorocera).
trivittata Wied.——West Indies.——Wied. Auss. Zweifl. II, 300, 34.
trixoides Walk.——Georgia.——Walker, List, etc. IV, 760.
unifasciata Desv.—Philadelphia.—R. Desvoidy, Myod. p. 105 (La-
    treillia).
violenta Walk.—N. Scotia.—Walker, List, etc. IV, 788 (Aplomyia).
virginiensis Macq.—Virginia.—Macq. Dipt. Exot. 4e Suppl. p. 171,

    Méin. de Lille, 1850, p. 144 (Jurinia).

vivida Harris. ——New England. ——Harris, Catal. etc. Insects of New
    England, p. 490 (vid. T. hirta Drury).
Xychus Walk.—Jamaica.—Walker, List, etc. IV, 770 (Ophelia).
```

#### Gonia Meigen.

albifrons Walk. —- Huds. Bay. —- Walker, List, etc. IV, 798.

angusta Macq. - Jamaica. - Macq. Dipt. Exot. II, 3, 56, 7, tab. v fig. 5. Walker, List, etc. IV, 798.

auriceps Meig. — Europe (Meig.); Georgia, Tunis (Walk.). — Meigen, V, 5, 7. Walker, List, etc. IV, 798.

basalis Harris.—Cat. Ins. Mass.

crassicornis Fab. - West Indies. - Fabr. Syst. Antl. p. 301, 84 (Musca). Wied. Auss. Zweifl. II, 345, 4.

frontosa Say. — Upper Missouri. — Say, J. Acad. Phil. VI, 175.

philadelphica Macq.—N. Scotia (Walk.); Philadelphia (Macq.).— Macq. Dipt. Exot. II, 3, 51, 6. Mém. de Lille, 1842, p. 207. Walker, List, etc. IV, 798.

tarda Harris.——Cat. Ins. Mass.

vertebrata Harris. -- Cat. Ins. Mass.

#### Idia Meig.

viridis Wied. --- North America. --- Wied. Auss. Zweifl. II, 354, 11.

### Mesembrina Meig.

Latreillii Desv. --- Nova Scotia, Huds. Bay (Walk.). --- R. Desvoidy, Myod. p. 401, 2. Walker, List, etc. IV, 811. pallida Say. — Indiana. — Say, J. Acad. Phil. VI, 175.

### Sarcophaga Meig.

acerba Walk.—Nova Scotia.—Walker, List, etc. IV, 824. aegra Walk.—Massachusetts.——l. c. 821.

Anaces Walk.—North America.—l. c. 833.

anxia Walk. --- North America (?) --- l. c. 818.

argyrocephala Macq. — Texas. — Macq. Dipt. Exot. 1er Suppl. 192, 25. Mém. de Lille, 1844, p. 320.

aspera Walk.—North America (?)—Walker, List, etc. IV, 825.

assidua Walk.——U. States.——Walker, Dipt. Saund. IV, 328. aterrima Desv.——Carolina.——Desvoidy, Myod. p. 336, 3 (*Peckia*).

avida Walk.——Nova Scotia.——Walker, List, etc. IV, 822.

basalis Walk.—U. States.—Walker, Dipt. Saund. IV, 323.

cadaverina Desv. —— Carolina. —— R. Desv. Myod. p. 365, 3 (Cynomyia).

carnaria Linn.—Europe (autor.); Mass. (Harris Catal.).

chrysostoma Wied. --- West Indies, Brazil. --- Wied. Auss. Zweifl. II, 356, 2.

comes Walk.—U. States.—Walker, Dipt. Saund. IV, 323.

consobrina Desv. -- Philadelphia. -- R. Desvoidy, Myod. p. 344, 24 (Myophora).

cubensis Desv.——Cuba.——R. Desvoidy, Myod. p. 342, 4 (Myophora). cubensis Macq.——Cuba.——Macq. Dipt. Exot. II, 3, 106, 20. Mém. de

Lille, 1842, p. 263, tab. xii, fig. 6.

derelicta Walk.—U. States.—Walker, Dipt. Saund. IV, 322. fervida Desv.—St. Domingo.—R. Desv. Myod. p. 341, 10 (Myophora). flavipalpis Macq. —Newfoundland. — Macq. Dipt. Exot. 4e Suppl. p.

236, 3. Mém. de Lille, 1850, p. 209 (Cynomyia).

```
fulvipes Macq. —Cuba. — Macq. Dipt. Exot. II, 3, 105, 19. Mém. de
     Lille, 1842, p. 262, tab. xii, fig. 5.
fulvipes Walk. — U. States. — Walker, Dipt. Saund. IV, 328.
Georgina Wied. --- Mass. (Harris Cat.); Huds. Bay, Newfoundland
     (Walk.); Georgia (Wied.). - Wied. Auss. Zweifl. II, 357, 4.
     Walker, List, etc. IV, 829.
immanis Walk.—Honduras.—Walker, List, etc. IV, 815. imperialis R. Desv.—Cuba.—R. Desvoidy, Myod. p. 335 (Peckia).
     Macq. Hist. Nat. Dipt. II, 223, 1, tab. xvi, fig. 1 (Phrissopodia),
     (S. praeceps Wied.).
importuna Walk.—North America (?)—Walker, List, etc. IV, 819.
incerta Walk. — Jamaica. — Walker, Dipt. Saund. IV, 324.
lambens Wied. -- West Indies, Brazil. -- Wied. Auss. Zweifl. II,
     365, 23.
L'herminieri Desv.——Carolina.——R. Desv. Myod. p. 339, 5 (Myophora).
lanipes Desv.——Carolina.——R. Desvoidy, Myod. p. 336, 5.
mortuarum Lin. - Europe (aut.); Grænland (Fabr.). - Linné, etc
     Meigen (Sarcophaga). O. Fabricius, Fauna Grænl. p. 206, 166
     (Musca). Stæger, Grænland's Antliater.
obsoleta Wied.——West Indies.——Wied. Anss. Zweifl. II, 367, 29.
occidua Fab. — West Indies. — Fab. Ent. Syst. IV, 315, 12 (Musca).
     Syst. Antl. p. 288, 19. Wied. Auss. Zweifl. 11, 368, 31.
pallipes Walk .- U. States .- Walker, Dipt. Saund. IV, 329.
plinthopyga Wied. - Jamaica, Demerara, Nova Scotia (Walk.); St. Tho-
    mas (Wied.) .- - Wied. Auss. Zweifl. II, 360, 10. Walker, Lin. Trans.
     XVII, 352, 57. List, etc. IV, 820.
plumipes Desv.—St. Domingo.—R. Desv. Myod. p. 336, 4 (Peckia). praeceps Wied.—Cuba.—Wied. Auss. Zweifl. II, 355, 1.
querula Walk.—North America (?)—Walker, List, etc. IV, 821.
rabida Walk.—Nova Scotia.—Walker, List, etc. IV, 823. rapax Walk.—North America (?)—Walker, l. c. IV, 818.
rediviva Walk.—Huds. Bay.—Walker, l. c. IV, 823. rubella Wied.—Antigoa.—Wied. Auss. Zweifl. II, 357, 5.
stimulans Walk.——North America.——Walker, List, etc. IV, 817. trigonomaculata Macq.——Mexico.——Macq. Dipt. Exot. II, 3, 106, 21.
```

trivittata Macq.—Cuba, Mexico.—Macq. Dipt. Exot. II, 3, 105, 18. Mém. de Lille, 1842, p. 262, tab. xii, fig. 3.

vigil Walk .- Nova Scotia .- Walker, List, etc. IV, 831.

Mém. de Lille, 1842, p. 263, tab. xiii, fig. 2.

viridescens Desv.—Nova Scotia.—R. Desvoidy, Myod. p. 342, 13 (Myophora).

### Dexia Meig.

```
abdominalis Desv.—Nova Scotia.—R. Desvoidy, Myod. p. 306, 2 (Estheria). Walker, List, etc. IV, 835.

Abzoe Walk.—Georgia.—l. c. 846.
albifrons Walk.—U. States.—Walker, Dipt. Saund. IV, 317.
analis Say.—Indiana.—Say, J. Acad. Phil. VI, 177, 2.
analis R. Desv.—Carolina.—R. Desv. Myod. p. 315, 3 (Zelia).
```

```
canescens Walk. -- U. States. -- Walker, Dipt. Saund. IV, 310.
cerata Walk .-- North America .-- Walker, List, etc. IV, 847.
Cremides Walk. --- North America. --- Walker, List, etc. IV, 842.
dives Wied. -- Kentucky. -- Wied. Auss. Zweifl. II, 377, 15.
fuscanipennis Macq. --- Yucatan. --- Macq. Dipt. Exot. 1er Suppl. 188, 7.
    Mém. de Lille, 1844, p. 316, tab. xx, fig. 11.
Halone Walk. ——Georgia. ——Walker, List, etc. IV, 837.
Harpasa Walk.—North America.—Walker, List, etc. IV, 840. lateralis Harris.—Cat. Ins. Mass.
melanocera R. Desv.——Carolina.——R. Desvoidy, Myod. p. 312, 2.
Ogoa Walk.—Nova Scotia.—Walker, List, etc. IV, 841.
pedestris Walk.—U. States.—Walker, Dipt. Saund. IV, 313.
postica Walk.——Georgia.——l. c. 310.
punctata Desv.——Philadelphia.——R. Desvoidy, Myod. p. 308, 3 (Di-
    nera).
Prexaspes Walk.——Georgia.——Walker, List, etc. IV, 837 (Estneria).
Pristis Walk. ——Massachusetts. ——Walker, List, etc. IV, 841.
rostrata Desv. -- North America. -- R. Desvoidy, Myod. p. 315, 1
    (Zelia).
rubriventris Macq. --- Yucatan. --- Walk. Dipt. Exot. 1er Suppl. 188, 6.
    Mém. de Lille, 1844, p. 316, tab. xx, fig. 10.
rufipennis Macq. --- Nova Scotia. --- Macq. Dipt. Exot. II, 3, 87, 3.
    Mém. de Lille, 1842, p. 244, tab. x, fig. 3.
strenua R. Desv. —— St. Domingo. —— R. Desvoidy, Myod. p. 315, 2
    (Zelia).
Thomæ Wied. — Jamaica, St. Thomas. — Wied. Auss. Zweifl. II, 379,
    18. Walker, List, etc. IV, 840.
tibialis Desv.—Nova Scotia.—R. Desv. Myod. p. 306, 1 (Estheria).
```

apicalis Desv.—Carolina.—R. Desv. Myod. p. 316, 4 (Zelia).

#### Megaprosopus Macq.

velox Desv. ——Carolina. ——R. Desv. Myod. p. 316, 5 (Zelia). vertebrata Say. -- Indiana. -- Say, J. Acad. Phil. VI, 176, 1.

rufiventris Guérin. -- Mexico. -- Macq. Dipt. Exot. II, 3, 84, 1. Mém. de Lille, 1842, p. 241, tab. x, fig. 1.

#### Microphthalma Macq.

nigra Macq. — Amer. Sept. — Macq. Dipt. Exot. II, 3, 85, 1. Mém. de Lille, 1842, p. 242, tab. x, fig. 2.

#### Musca Linn.

americana Desv. --- North America. --- R. Desvoidy, Myod. p. 404, 4 (Graphomyia).

Walker, List, etc. IV, 835.

amoena Harris.——Cat. Ins. Mass. aurulans Desv.——Huds. Bay.——R. Desvoidy, Myod. p. 437, 11 (Calliphora). Walker, List, etc. 1V, 893 (id.).

- basalis Walk.—Jamaica.—Walker, Dipt. Saund. IV, 347.
- basilaris Macq. Jamaica. Macq. Dipt. Exot. II, 3, 151, 8. Mém. de Lille, 1842, p. 310. Walker, List, etc. IV, 901.
- brunnicornis Macq. Mexico. Macq. Dipt. Exot. II, 3, 142. Mém de Lille, 1842, p. 299 (Lucilia).
- brunnicosa Desv.——North America.——R. Desvoidy, Myod. p. 459, 26 (Lucilia).
- cadaverina Linné. ——Europe (aut.); New York (Fitch). Linné, Fabricius, Meigen, etc. Fitch, Survey, etc. p. 801.
- cadaverum Kirby.——lluds. Bay.——Kirby, North Amer. Zool. Ins. p. 316, 1. Walker, List, etc. 1V, 893 (Calliphora).
- caesar Linn.—Europe (aut.); North America (Fitch, Walker). Linné, Fabricius, Meigen, etc. O. Fabricius, Fauna Grænl. p. 207, 168 (Volucella). Fitch, Survey, etc. p. 801 (Lucilia). Walker, List, etc. IV, 879.
- caeruleiviridis Macq.—Baltimore.—Macq. Dipt. Exot. 5e Suppl. p. 113, 62. Mém. de Lille, 1855 (Lucilia).
- caerulescens Desv.——Carolina.——R. Desvoidy, Myod. p. 447, 8 (Chrysomyia).
- carolinensis Desv.——Carolina.——R. Desvoidy, Myod. p. 457, 18 (Lucilia).
- cerasina Say.——Massachusetts.——Harris, Cat. Ins. Mass. (Hitchcock's Reports, etc. p. 594). As far as I know, has never been described.
- certima Walk .--- Florida .--- Walker, List, etc. IV, 873.
- cloacaris O. Fabr.—Grænland.—O. Fabr. Fauna Grænl. p. 204, 163.
- Cluvia Walk.—West Indies.—Walker, List, etc. IV, 885 (Lucilia). compressa Desv.—Huds. Bay (Walk.); Carolina (Desv.).—Desvoidy, Myod. p. 438, 16 (Calliphora). Walker, List, etc. IV, 893.
- compar Desv.——Philadelphia.——R. Desvoidy, Myod. p. 457, 19 (Lu-
- consobrina Macq.—North America.—Macq. Dipt. Exot. 3e Suppl. 57, 42. Mém. de Lille, 1847, p. 217 (Lucilia). ("var. Luciliae fraternae?" Macq.).
- contigua Walk. -- U. States. -- Walker, Dipt. Saund. IV, 344.
- corvina Fab. Europe (aut.); Nova Scotia (Walk.). Fabricius, Meigen, etc. Walker, List, etc. 1V, 900.
- decora Desv.—West Indies.—R. Desvoidy, Myod. p. 448, 10 (Chrysomyia).
- domestica Lin.—Europe (aut.); Massachusetts (? Harris Catal.).
- erythrocephala Meig.——Europe (aut.); Grænland (Stæger).——Meigen, etc. Stæger, Grænland's Antliater.
- fraterna Macq.——North America.——Macq. Dipt. Exot. 2e Suppl. 57, 41. Mém. de Lille, 1847, 2e part. 217 (Lucilia).
- grænlandica Stæger. Grænland Stæger, Grænl. Antliater.
- harpyia Harris.——New England.——Harris, Cat. Ins. Mass. (quoted separately from *M. domestica* F.). Fitch, Survey, etc. p. 803.
- Heraea Walk.—N. America.—Walker, List, etc. IV, 881 (Lucilia). hirticollis Harris ——Cat. Ins. Mass.
- hyacinthina R. Desv. ——Amer. Merid. (Desv.); Am. Sept. (Macq.). ——

- R. Desvoidy, Myodaires, p. 450, 16 (Chrysomyia). Macq. Dipt. Exot. II, 3, 148, 29. Mém. de Lille, 1842, p. 305, tab. xvii, fig. 8.
- Idessa Walk. Huds. Bay. Walker, List, etc. IV, 908 (Graphomyia).
- Ilerda Walk. Huds. Bay. Walker, List, etc. IV, 895 (Melinda).
- insularis Walk. --- West Indies. --- Walker, Dipt. Saund. IV, 340.
- lepida Desv. --- France, Philadelphia, Nova Scotia. --- R. Desvoidy, Myodaires,
- L'herminieri Desv.——Carolina.——R. Desvoidy, Myod. p. 446, 6 (Chrysomyia).
- Lilaea Walk. Huds. Bay. Walker, List, etc. IV, 894 (Calliphora). macellaria Fab. — Brazil, Cuba (Macq.). — Fab. Syst. Ent. p. 776, 14. Ent. Syst. IV, 319, 28. Syst. Antl. p. 292, 42. Olivier, Encyclop. Méthod. VIII, 14, 14. Wied. Auss. Zweifl. II, 405, 36. Macq. Dipt. Exot. II, 3, 147, 28. Mém. de Lille, 1842, p. 305, tab. xvii, fig. 9 (Lucilia).
- meditabunda Fab. -- Europe (aut.); Nova Scotia (Walk.). -- Fabricius, Meigen, etc. Walker, List, etc. IV, 910 (Graphomyia).
- meridensis Macq.—Yucatan.—Macq. Dipt. Exot. 1er Suppl. 199, 33. Mém. de Lille, 1844, p. 327 (Lucilia).
- mexicana Macq. Mexico. Macq. Dipt. Exot. II, 3, 143, 17. Mém. de Lille, 1842, p. 300, tab. xviii, fig. 7 (Lucilia).
- mexicana Macq. Mexico. Macq. Dipt. Exot. II, 3, 158, 4. Mém. de Lille, 1842, p. 315, tab. xxi, fig. 9 (Curtoneura).
- micans Macq. -- Macq. Dipt. Exot. 5e Suppl. p. 116, 10. Mém. de Lille, 1855 (Curtoneura).
- mollis Walk.—Huds. Bay.—Walker, List, etc. IV, 892 (Phormia). mortisequa Kirby.——Amer. Borealis.——Kirby, Amer. Zool. Ins. p. 316.
- muralis Walk. --- Huds. Bay. --- Walker, List, etc. IV, 888.
- myoidea R. Desv.——Philadelphia.——R. Desvoidy, Myod. p. 436, 8 (Calliphora).
- nigriceps Macq.——Mexico.——Macq. Dipt. Exot. II, 3, 143, 16. Mém. de Lille, 1842, p. 300 (Lucilia). Walker, List, etc. IV, 881.
- obscoena Esch.—Unalaschka (Russian America).—Eschscholz, Entomogr. I, 113, 84. Wied. Auss. Zweifl. II, 391, 12.
- occidentis Walk.—U. States.—Walker, Dipt. Saund. IV, 332. occidentis Walk.—U. States (distinct from the preceding).—Walker, Dipt. Saund. IV, 347.
- ochricornis Wied. Brazil (Wied.); Cuba (Macq.). Wied. Auss. Zweifl. II, 408, 41. Macq. Dipt. Exot. II, 3, 149, 3. Mém. de Lille, 1842, p. 307, tab. xx, fig. 5 (Pyrellia).
- philadelphica Desv.——Philadelphia.——R. Desvoidy, Myod. p. 466, 3 (Phormia).
- Placei Desv.—West Indies.—R. Desvoidy, Myod. p. 448, 11 (Chry-
- proxima Walk.——California.——Walker, Dipt. Saund. IV, 341.
- punctata Desv.—Jamaica.—R. Desvoidy, Myod. p. 428, 1 (Ormia). Macq. Hist. Nat. Dipt. II, 250, 3 (Ochromyia). Walker, List, etc. IV, 868.

- pusilla Macq. Haiti. Macq. Dipt. Exot. 3e Suppl. 59, 16. Mém. de Lille, 1847, p. 219, tab. vi, fig. 13.
- putrida Fab. West Indies. Fab. Ent. Syst. IV, 316, 16. Syst. Antl. p. 288, 24. Wied. Auss. Zweifl. II, 404, 35.
- regina Meig. Europe (aut.); North America (Harris Cat.). Meigen, etc. Harris, Cat. Ins. Mass.
- rutilans Fab. ——West Indies. —— Fab. Ent. Syst. IV, 314, 7. S. Antl. p. 287, 13. Wied. Auss. Zweifl. II, 392, 14.
- splendida Macq. Texas. Macq. Dipt. Exot. 1er Suppl. 196, 17. Mém. de Lille, 1844, p. 324 (Calliphora).
- serva Walk.—U. States.—Walker, Dipt. Saund. IV, 349.
- stabulans Fall.—Europe (aut.); Nova Scotia (Walk.).—Fallen, Meigen, etc. Walker, List, etc. IV, 912.
- stygia Fab.—Newfoundland Fabr. Spec. Ins. II, 438, 14. Ent. Syst. IV, 317, 22. Syst. Antl. p. 290, 31. Olivier, Encyclop. Method. Ins. T. VIII, 14, 9. Wied. Auss. Zweifl. II, 393, 15.
- tandrec Desv.—Carolina.—R. Desvoidy, Myod. p. 326, 1 (*Theresia*). terrae novae Macq.—Newfoundland.—Macq. Dipt. Exot. 4e Suppl.
- p. 244, 29. Mém. de Lille, 1850, p. 217 (Calliphora). terrae novae Macq.—Newfoundland.—Macq. Dipt. Exot. 4e Suppl.
- p. 251, 57. Mem. de Lille, 1850, p. 224, tab. xxiii, fig. 1 (Lucilia).
- terrae novae Desv.—Newfoundland.—R. Desvoidy, Myod. p. 467, 6 (Phormia).
- tibialis Desv.——St. Domingo.——R. Desvoidy, Myod. p. 446, 5 (Chrysomyia).
- turbida Walk.—U. States. —Walker, Dipt. Saund. IV, 336.
- vespillo Fab.—Europe (aut.); Nova Scotia (Walk.).—Fabricius, Meigen, etc. Walker, List, etc. IV, 907 (Nitellia).
- vicina Desv.—Huds. Bay, Nova Scotia.—Desvoidy, Myod. p. 435, 5 (Calliphora). Walker, List, etc. IV, 893.
- violacea Macq. Mexico. Macq. Dipt. Exot. 2e Suppl. 83, 34. Mém. de Lille, 1846, p. 99 (Lucilia).
- viridescens Desv.——Florida, Nova Scotia.——Desvoidy, Myod. p. 437, 12 (Calliphora). Walker, List, etc. IV, 895.
- vivax O. Fab. ——Grænland. ——O. Fabr. Fauna Grænl. p. 206, 165.
- vomitoria Linné.—Europe (aut.); Mass. (Harris Cat.).—Linné, etc. Harris, Ins. New Engl. p. 492. O. Fabricius, Fauna Grænl. p. 207, 167 (Volucella).

# Anthomyia Meig.

- Acra Walk. Huds. Bay. Walker, List, etc. IV, 951.
- Aemene Walk.—Nova Scotia.—l. c. 937.
- aenescens Wied.—N. Orleans (Wied.); Texas (Macq.—Wied. Auss. Zweifl. II, 435, 29. Macq. Dipt. Exot. 1er Suppl. 203, 4. Mém. de Lille, 1844, p. 331 (Ophyra).
- Alaba Walk. --- North America. --- Walker, List, etc. IV, 948.
- Alcathoe Walk .- Nova Scotia .- I. c. 937.
- Alone Walk.——Huds. Bay.——l. c. 941.
- Anane Walk.—Huds. Bay.—I. c. 927.

```
Apina Walk. ——Nova Scotia. ——l. c. 927.
arctica Zett. ——Grænland. ——Zetterstedt, Ins. Lapponica. Stæger, Græn-
    land's Antliater.
Ausoba Walk. --- Nova Scotia. --- Walker, List, etc. IV, 938.
Badia Walk.——Huds. Bay.——l. c. 950.
Barpana Walk.—Nova Scotia.—l. c. 933.
Brixia Walk.—Nova Scotia.—l. c. 946.
Bysia Walk.—Nova Scotia.—l. c. 936.
calceola Harris.—Cat. Ins. Mass.
campestris R. Desv.—Europe and N. America.—R. Desvoidy, Myod.
ciliata Meig. -- Europe, Grænland. -- Meigen, etc. Stæger, Grænland
     Antliater.
communis Walk.—U. States.—Walker, Dipt. Saund. IV, 366. deceptiva Fitch.—New York.—Fitch, First and Second Report, p.
    301, tab. i, fig. 3 (Hylemyia).
Dejeanii Desv.—Philadelphia.—R. Desv. Myod. p. 558, 4 (Nerina). dentipes Meig.—Europe (aut.); Grænland (Stæger).—Meigen, etc.
    Stæger, Grænl. Antliater.
determinata Walk .- Nova Scotia .- Walker, List, etc. IV, 954.
Donuca Walk.—Nova Scotia.—Walker, List, etc. IV, 946.
dubia Curtis.——Amer. Borealis.——Curtis, Ins. Ross's Exp. p. lxxix.
frontata Zett.——Grænland.——Zetterstedt, Insecta Lapponica. Stæger,
    Grænland's Antliater.
Geldria Walk. --- Nova Scotia. --- Walker, List, etc. IV, 940.
goniphora Harris. -- Cat. Ins. Mass.
Idyla Walk.——Huds. Bay.——Walker, List, etc. IV, 948. incerta Walk.——U. States.——Walker, Dipt. Saund. IV, 354.
irritans Meig. -- Europe (Meig.); Grænland (Stæger). -- Meigen, etc.
    Stæger, Grænl. Antliater.
ischiaca Harris. --- Cat. Ins. Mass.
Isura Walk.——Nova Scotia.——Walker, List, etc. IV, 952.
lenis Harris. -- Cat. Ins. Mass.
leucoprocta Wied. West Indies. Walker, List, etc. II, 433, 26.
Lipsia Walk.—Huds. Bay.—Walker, List, etc. IV, 928.
lunatifrons Ilarris.——Cat. Ins. Mass.
Luteva Walk. --- Nova Scotia. --- Walker, List, etc. IV, 934.
Lysinoe Walk.—Nova Scotia.—l. c. 938.
Narina Walk.---Nova Scotia.---l. c. 933.
Narona Walk. Florida. l. c. 945.
nigra Walk. --- Huds. Bay. --- l. c. 931.
nigrifrons Walk.—Huds. Bay.—1. c. 932.
nigripennis Walk.—Huds. Bay.—l. c. 929. notatifrons Harris.—Cat. Ins. Mass.
Omole Walk.—Huds. Bay.—Walker, List, etc. IV, 930.
Opalia Walk.—Nova Scotia.—l. c. 957.
palposa Walk.——Huds. Bay.——1. c. 926.
Perrima Walk.—Huds. Bay.—l. c. 950.
pruinosa Macq. — Texas. — Macq. Dipt. Exot. 1er Suppl. 201, 4.
    Mém. de Lille, 1844, p. 329 (Aricia).
Pylone Walk. --- North America. --- Walker, List, etc. IV, 928.
```

```
raphani Harris. -- New England. -- Harris, Catal. Ins. Mass. Ins. of
    New Engl. p. 494.
reces Harris. --- Cat. Ins. Mass.
Rugia Walk. —- Huds. Bay. —- Walker, List, etc. IV, 923.
ruficeps Meig.—Europe, Grænland.—Meigen, etc. Stæger, Grænl.
    Antliater.
saltatrix R. Desv.—Europe and North America.—R. Desvoidy, Myod.
    p. 567, 1 (Fannia).
scatophagina Zett.—Grænland.—Zetterstedt, Ins. Lapponica. Stæ-
    ger, Grænland's Antliater.
Signia Walk.—Nova Scotia.—Walker, List, etc. IV, 939.
similis Walk.—Huds. Bay.—l. c. 930.
similis Fitch.—New York.—Fitch, First and Second Report, etc.
    p. 301.
soccata Walk. --- Huds. Bay. --- Walker, List, etc. IV, 941.
solita Walk. --- U. States. --- Walker, Dipt. Saund. IV, 354.
spinosa Walk.—Huds. Bay.—Walker, List, etc. IV, 926.
striolata Meig.—Europe, Grænland.—Meigen, etc. Stæger, Grænl.
    Antliater.
tarsalis Walk.—U. States.—Walker, Dipt. Saund. IV, 355.
Teate Walk.—Huds. Bay.—Walker, List, etc. IV, 931.
terminalis Walk.——U. States.——Walker, Dipt. Saund. IV, 356.
timida Harris. -- Cat. Ins. Mass.
Tinia Walk.—Huds. Bay.—Walker, List, etc. IV, 949.
trigonifera Zett.—Grænland.—Zetterstedt, Ins. Lapponica. Stæger,
    Grænl. Antliater.
triangulifera Zett.——Grænland.——locis citatis.
Troene Walk.—Nova Scotia.—Walker, List, etc. IV, 936. Uxama Walk.—Huds. Bay.—1. c. 948.
Viana Walk. -- Nova Scotia. -- l. c. 951.
                          Eriphia Meigen.
Acela Walk. —Huds. Bay. —Walker, List, etc. IV, 962.
Arelate Walk.—Huds. Bay.—Walker, List, etc. IV, 961.
biquadrata Walk.—Huds. Bay.—1. c. 963.
ciliata Walk.——Huds. Bay.——l. c. 961.
flavifrons Walk.—Huds. Bay.——l. c. 966.
```

#### Dialyta Meigen.

cupreifrons Walk. Huds. Bay. Walker, List, etc. 1V, 966.

grisea Walk.—Huds. Bay.—l. c. 962. Lamnia Walk.—Huds. Bay.—l. c. 964. lata Walk.—Huds. Bay.—l. c. 963. marginata Walk.—Huds. Bay.—l. c. 964. pretiosa Walk.—Huds. Bay.—l. c. 965.

# Caenosia Meigen.

antica Walk. --- U. States. --- Walker, Dipt. Saunders, IV, 367.

```
atrata Walk.—U. States.—Walker, Dipt. Saund. IV, 369.
fuscopunctata Macq.—North America.—Macq. Dipt. Exot. 4e Suppl.
p. 270, 4. Mém. de Lille, 1850, p. 243.
intacta Walk.—U. States.—Walker, Dipt. Saund. IV, 369.
lata Walk.—U. States.—Walker, Dipt. Saund. IV, 368.
sexmaculata Walk.—Huds. Bay.—Walker, List, etc. IV, 970.
solita Walk.—Huds. Bay.—Walker, Dipt. Saund. IV, 368.
spinosa Walk.—Huds. Bay.—Walker, List, etc. IV, 967.
substituta Walk.—Massachusetts.—Walker, List, etc. IV, 971.
```

# Cordylura Fall.

```
Aea Walk.—Huds. Bay.—Walker, List, etc. IV, 978.
bicolor Walk.—Huds. Bay.—Walker, List, etc. IV, 974.
cupricrus Walk.—Huds. Bay.—Walker, List, etc. IV, 974.
flavipennis Walk.—Huds. Bay.—L. c. 975.
haemorrhoidalis Meig.—Europe, Grænland.—Meigen, etc. Stæger,
Grænl. Antliater.
imperator Walk.—Huds. Bay.—Walker, List, etc. IV, 975.
longa Walk.—Huds. Bay.—L. c. 976.
placida Harris.—Cat. Ins. Mass.
pubera Lin.—Europe (aut.); Huds. Bay (Walk.).—Linné, Fabricius,
Meigen, etc. Walker, List, etc. IV, 972.
qualis Say.—Indiana.—Say, J. Acad. Phil. VI, 176.
tenuior Walk.—Huds. Bay.—Walker, List, etc. IV, 977.
volucricaput Walk.—Huds. Bay.—Walker, List, etc. IV, 977.
```

# Lispe Meigen.

```
hispida Walk.—Huds. Bay.—Walker, List, etc. IV, 971. simillima Walk.—Huds. Bay.—Walker, List, etc. IV, 972.
```

```
Scatophaga Latreille.

Scatophaga Latreille.

apicalis Curtis.—Amer. Borealis.—Curtis, Ins. Ross's Exp. p. Ixxx. bicolor Walk.—Huds. Bay.—Walker, List, etc. IV, 982. carolinensis Desv.—Carolina.—R. Desvoidy, Myod. p. 629, 11. exotica Wied.—New Orleans.—Wied. Auss. Zweifl. II, 448, 3. fucorum Meig.—Europe, Arctic America.—Meigen, etc. Curtis, Ins. Ross's Exp. p. lxxx. Stæger, Grænland's Antliater. furcata Say.—Missouri (Say); Mass. (Harris).—Say, J. Acad. Phil. III, 98 (Pyropa). Wied. Auss. Zweifl. II, 449, 5. Harris, Catal. Ins. Mass. (S. postilena). Ins. New Engl. p. 496, note. intermedia Walk.—Nova Scotia.—Walker, List, etc. IV, 980. litorea Meig.—Europe, Grænland.—Meigen, etc. Stæger, Grænland's Antliater. pallida Walk.—Huds. Bay.—Walker, List, etc. IV, 981. postilena Harris.—vid. S. furcata. pubescens Walk.—Huds. Bay.—Walker, List, etc. IV, 982. squalida Meig.—Europe (aut.); Nova Scotia, Huds. Bay (Walk.).—Meigen, etc. Walker, List, etc. IV, 981. Stæger, Grænland's Antl.
```

77

scybalaria Lin.—Europe (aut.); Grænland (Fabr.).—Linné, etc. O. Fabr. Fauna Grænl. p. 204, 162 (Musca).

stercoraria Lin.—Europe (aut.); Grænland (Fabr.).—Linné, etc. O. Fabricius, Fauna Grænl. p. 203, 161 (Musca).

# Dryomyza Meig.

convergens Walk. -- Nova Scotia. -- Walker, List, etc. IV, 983.

# Sapromyza Fall.

```
Amida Walk.——Georgia.——Walker, List, etc. IV, 988.
bipunctata Say.——Mexico.——Say, J. Acad. Phil. VI, 178, 2.
connexa Say.——Indiana.——Say, J. Acad. Phil. VI, 177, 1.
octopunctata Wied.——West Indies.——Wied. Auss. Zweifl. II, 454, 9.
philadelphica Macq.——Georgia, Nova Scotia (Walk.); Philad. (Macq.).
——Macq. Dipt. Exot. II, 3, 191, 13. Mém. de Lille, 1842, p. 348.
Walker, List, etc. IV, 987.
resinosa Wied.——Georgia.——Wied. Auss. Zweifl. II, 456, 14.
sordida Wied.——West Indies.——Wied. Auss. Zweifl. II, 456, 12.
subfasciata Harris.——Cat. Ins. Mass.
```

```
Ortalis Fall.
aenea Wied. --- New Orleans. --- Wied. Auss. Zweifl. II, 462, 8.
    N. B. Manuscript note of Say: "Trypeta trifasciata Say? Barabino,
    19." But I do not find the reference in Say's Ins. of Barabino; this
    species of his has probably never been published.
annonae Fab. - West Indies. - Fab. Ent. Syst. IV, 358, 189. Syst.
    Antl. p. 320, 19 (Tephritis). Wied. Auss. Zweifl. II, 463, 11.
armata Desv.——Philadelphia.——R. Desv. Myod. p. 719, 2 (Strauzia).
Boscii Desv.—Carolina.—R. Desv. Myod. p. 730, 3 (Rivellia).
basalis Walk.——U. States.——Walker, Dipt. Saund. IV, 373.
cerasi Lin. -- Europe (aut.); Mass. (Harris Cat.).
colon Harris.—Cat. Ins. Mass.
costalis Walk.——Huds. Bay.——Walker, List, etc. IV, 995.
costalis Wied. — West Indies. — Fab. Ent. Syst. IV, 360, 196 (Musca).
    Syst. Antl. p. 278, 25 (Dacus); ibid. p. 275, 14 (Dacus aculeatus).
    Wied. Auss. Zweifl. II, 464, 13.
diopsides Walk. --- Huds. Bay. --- Walker, List, etc. IV, 995.
inermis Desv. ——Philadelphia. ——R. Desv. Myod. p. 718, 1 (Strauzia).
ligata Say. -- Mexico. -- Say, J. Acad. Phil. VI, 183, 2.
marginata Say.——Indiana.——1. e. 183, 1.
Massyla Walk.——North America.——Walker, List, etc. IV, 992.
mexicana Macq. --- Mexico. --- Macq. Dipt. Exot. II, 3, 208, 3.
    de Lille, 1842, p. 365, tab. xxix, fig. 3 (Herina).
notata Wied. ——Savannah, New York. ——Wied. Auss. Zweifl. II, 462, 9.
nuphera Harris.——Cat. Ins. Mass.
Ortoeda Walk.——North America.——Walker, List, etc. IV, 992.
philadelphica Desv.——Philadelphia.——R. Desvoidy, Myod. p. 715, 2
```

(Meckelia).

quadrifasciata Macq. — Macq. Hist. Nat. Dipt. II, 433, 8 (Herina).

N. B. Macquart, by mistake, quotes this species as *H. quadrivittata* in Mém. de Lille, 1842, p. 364.

quadrifasciata Harris.—North America.—Harris, Cat. Ins. Mass. (Trypeta). Walker, List, etc. IV, 993.

rufitarsis Macq. — Baltimore. — Macq. Dipt. Exot. 5e Suppl. p. 123, 7, tab. vii, fig. 5. Mém. de Lille, 1855 (Herina).

thoracica Desv.—Carolina.—R. Desv. Myod. p. 720, 1 (Delphinia). trifasciata Say.—U. States.—Say, J. Acad. Phil. VI, 184, 3.

vau Say. — Ohio. — Say, J. Acad. Phil. VI, 184, 4.

viridulans R. Desv.——North America.——R. Desvoidy, Myod. p. 729, 2 (Rivellia).

#### Sepsis Fallen.

caeruleifrons Macq.——Philadelphia.——Macq. Dipt. Exot. 2e Suppl. 94. Mém. de Lille, 1846, p. 110 (Nemopoda).

cylindrica Fab. -- Europe (aut.); Mass. (Harris Cat.).

minuta Wied. -- New York. -- Wied. Auss. Zweifl. II, 468, 4.

putris Linné.—Massachusetts.—Harris Catal.

referens Walk. --- North America. -- Walker, List, etc. 1V, 999.

similis Macq.—North America.—Macq. Dipt. Exot. 4e Suppl. p. 296, 4. Mém. de Lille, 1850, p. 269, tab. xxvii, fig. 11.

vicaria Walk. --- Florida. --- Walker, List, etc. IV, 998.

#### Lauxania Latreille.

argyrostoma Wied.—West Indies.—Wied. Auss. Zweifl. II, 471, 3. cylindricornis Fab.—Enrope (aut.); Georgia, New York, Nova Scotia (Wied.).—Fabricius, Fallen, Meigen, etc. Walker, List, etc. IV, 1003.

Elisae Wied.—Europe (aut.); Nova Scotia (Walk.).—Meigen, Macquart, etc. Walker, List, etc. IV, 1003.

lapsans Harris.——Cat. Ins. Mass.

lupulina Fab.——Europe (aut.); New York, Nova Scotia (Walk.).—— Fabricius, Meigen, Macquart, etc. Walker, List, etc. IV, 1003.

#### Lonchaea Fall.

caerulea Walk.——Georgia.——Walker, List, etc. IV, 1004.

glaberrima Wied.—West Indies.—Wied. Auss. Zweifl. II, 475, 1.

polita Say.——Indiana (Say); Mass. (Harris Cat.).——Say, J. Acad. Phil. VI, 188.

rufitarsis Macq.——North America.——Macq. Dipt. Exot. 4e Suppl. p. 300, 3. Mém. de Lille, 1847, p. 273, tab. xxviii, fig. 2.

tarsata Fall.—Europe (aut.); Huds. Bay (Walk.).—Fallen, Meigen, Macquart, etc. Walker, List, etc. IV, 1004.

# Trypeta Meig.

Acidusa Walk.—Jamaica.—Walker, List, etc. IV, 1014. albiscutellata Harris.—Cat. Ins. Mass.

- antillarum Macq. -- West Indies. -- Macq. Dipt. Exot. 4e Suppl. p. 289, 15. Mém. de Lille, 1850, p. 262, tab. xxvi, fig. 17 (Urophora).
- arcuata Walk. -- U. States. -- Walker, Dipt. Saund. IV, 383, tab. viii,
- asteris Harris. ——New England. ——Harris, Ins. New England, p. 498 (Tephritis).
- Avala Walk.——Jamaica.——Walker, List, etc. IV, 1020.
- Beauvoisii Desv.—U. States (?)—R. Desvoidy, Myod. p. 760, 1 (Prionella).
- caliptera Say. -- Indiana. -- Say, J. Acad. Phil. VI, 187, 3.
- cinctipes Harris. -- Cat. Ins. Mass.
- Comma Wied. —- Kentucky (Wied.); Philadelphia (Macq.). —- Wied. Auss. Zweifl. II, 478, 4. Macq. Dipt. Exot. II, 3, 229, 6. Lille, 1842, p. 386 (Acinia).
- cornigera Walk. --- North America (?) --- Walker, List, etc. IV, 1010.
- cutta Wied. Georgia. Wied. Auss. Zweifl. p. 486, 16.
- Dinia Walk.——Jamaica.——Walker, List, etc. IV, 1040.
- electa Say. -- Indiana. -- Say, J. Acad. Phil. VI, 185, 1.
- fimbriata Macq. Carolina. Macq. Dipt. Exot. II, 3, 228, 5. de Lille, 1842, p. 385, tab. xxxi, fig. 5 (Acinia).
- flavonotata Macq.—Baltimore.—Macq. Dipt. Exot. 5e Suppl. p. 125, 20, tab. vii, fig. 9. Mém. de Lille, 1855 (Tephritis).
- flexa Wied. Georgia. Wied. Auss. Zweifl. II, 483, 11.
- fucata Fab. -- West Indies. -- Fab. Ent. Syst. p. 4, 359, 194. Syst. Ant. p. 321, 24. Wied. Auss. Zweifl. II, 505, 44.
- fulvifrons Macq. Baltimore. Macq. Dipt. Exot. 5e Suppl. p. 125, 19. Mém. de Lille, 1855, tab. vii, fig. 8 (Urophora).
- interrupta Macq. --- North America. --- Macq. Hist. Nat. Dipt. II, 459, 16 (Urophora).
- Lichtensteinii Wied.—Mexico.—Wied. Auss. Zweifl. II, 497, 31.
- longipennis Wied. ——North America. ——Wied. Auss. Zweifl. II, 483, 12. marginepunctata Macq. — Philadelphia. — Macq. Ilist. Nat. Dipt. 11,
- 464, 12 (Tephritis). melliginis Fitch. -- New York. -- Fitch, First Report, etc. p. 65 (Te-
- phritis).
- Mevarna Walk.——Florida.——Walker, List, etc. IV, 1023.
- mexicana Wied.——Mexico.——Wied. Auss. Zweifl. II, 511, 58. Narytia Walk.——Florida.——Walker, List, etc. IV, 1020.
- Novæboracensis Fitch.—New York.—Fitch, First Report, etc. p. 67 (Acinia).
- nigriventris Macq. ——Baltimore. ——Macq. Dipt. Exot. 5e Suppl. p. 124, 18. Mém. de Lille, 1855 (Urophora).
- obliqua Macq. Cuba. Macq. Hist. Nat. Dipt. II, 464, 14. Dipt. Exot. II, 3, 225, 6. Mém. de Lille, 1842, p. 382, tab. xxx, fig. 11 (Tephritis).
- obliqua Say. Indiana. Say, J. Acad. Phil. VI, 186, 2.
- Ocresia Walk. —— Jamaica. —— Walker, List, etc. IV, 1016.
- picta Fab. ——North America, Massachusetts. ——Fab. Ent. Syst. IV, 355, 175 (Musca). Syst. Antl. p. 330, 18 (Dietya). Syst. Antl. p. 318,

10 (Tephritis conica). Wied. Auss. Zweifl. II, 489, 20. Macq. Dipt. Exot. II, 3, 201, 1, tab xxvii, fig. 4. Mém. de Lille, 1842, p. 358 (Camptoneura). Walker, List, etc. IV, 1041.

quadrifasciata Macq. --- Georgia. --- Macq. Dipt. Exot. II, 3, 226, 7. Mém. de Lille, 1842, p. 383, tab. xxx, fig. 8 (Tephritis).

quadrifasciata Harris. — vid. Ortalis quadrifasciata.

quadrivittata Macq.—Cuba.—Macq. Hist. Nat. Dipt. II, 456, 5 (Urophora).

scutellaris Wied.—Mexico.—Wied. Auss. Zweifl. II, 484, 13. scutellata Wied.—Mexico.—Wied. Auss. Zweifl. II, 494, 27.

septenaria Harris.——Cat. Ins. Mass. solidaginis Fitch.——New York.——Fitch, First Report, etc. p. 67 (Acinia).

tabellaria Fitch.—New York.—I. c. p. 65 (Tephritis).

tribulis Harris. -- Cat. Ins. Mass.

trimaculata Macq.—North America.—Macq. Dipt. Exot. II, 3, 226, 8. Mém. de Lille, 1842, p. 383, tab. xxxi, fig. 3 (Tephritis).

trifasciata Harris. -- Cat. Ins. Mass.

villosa Desv.—U. States (?)—R. Desv. Myod. p. 760, 2 (Prionella).

# Chyliza Fall.

metallica Walk .-- Huds. Bay .-- Walker, List, etc. IV, 1045.

# Prochyliza Walk.

xanthostoma Walk.—Huds. Bay.—Walker, List, etc. IV, 1045.

#### Loxocera Latr.

atricornis Harris.—Cat. Ins. Mass.

cylindrica Say. — Pennsylvania. — Say, J. Acad. Phil. III, 98. Wied. Auss. Zweifl. II, 528.

#### Lissa Meig.

carbonaria Walk.—New York.—Walker, List, etc. IV, 1047. cornuta Walk.—Huds. Bay.—Walker, List, etc. IV, 1047. polita Harris. — Cat. Ins. Mass. (Lissomyia, n. gen. Say, Mss.). varipes Walk. --- Ohio. --- Walker, List, etc. IV, 1046.

# Tetanura Meig.

pallida Harris. — Cat. Ins. Mass.

#### Calobata Meig.

agilis Harris .- Cat. Ins. Mass.

albimana Macq.—Ohio, Georgia (Walk.); Bengal (id.); Java, Australia, Cuba, Philadelphia (Macq.).—Macq. Dipt. Exot. II, 3, 245, 3, tab. xxxiii, fig. 3. Mém. de Lille, 1842, p. 402. Walker, List, etc.

Alesia Walk.——Huds. Bay.——Walker, List, etc. IV, 1048. Aloa Walk .-- Jamaica .-- Walker, List, etc. IV, 1054.

antennaepes Say.——Illinois, Penna. (Say); Massachusetts (Harris Cat.).
——Say, J. Acad. Phil. III, 97, 1. Wied. Auss. Zweifl. II, 546, 25.
divisa Wied.——Mexico.——Wied. Auss. Zweifl. II, 540, 14.
erythrocephala Fab.——Mexico, Brazil.——Fab. Syst. Antl. p. 260, 1.
Wied. Auss. Zweifl. II, 532, 1. Walker, List, etc. IV, 1055.
fasciata Fab.——West Indies.——Fab. Syst. Ent. p. 781, 43. Ent. Syst.

IV, 336, 102. Syst. Antl. p. 262, 9. Wied. Auss. Zweifl. II, 536, 7. pectoralis Wied. —Mexico. —Wied. Auss. Zweifl. II, 540, 13. univitta Walk. —New York. —Walker, List, etc. IV, 1049. valida Walk. —U. States. —Walker, Dipt. Saund. IV, 390.

# Tachiaptera Macq.

trivittata Macq.——North America.——Macq. Hist. Nat. Dipt. II, 491, 1, tab. xx, fig. 9.

## Nerius Wied.

atripes Desv.——Carolina.——R. Desvoidy, Myod. p. 738, 7 (Neria).
carolinensis Desv.——Carolina.——R. Desvoidy, Myod. p. 738, 6 (Neria).
geometra Desv.——Carolina.——R. Desvoidy, Myod. p. 736, 1 (Neria).
longipes (Fab.), Desvoid.——Carolina.——R. Desvoidy, Myod. p. 737, 5 (Neria).

# Micropeza Meig.

producta Walk.——Georgia.——Walker, List. etc. IV, 1056. pallipes Say.——Missouri.——Say, J. Acad. Phil. III, 97, 2 (Calobata). Wied. Auss. Zweifl. II, 548, 3.

#### Sphyracephala Say.

brevicornis Say. ——Penna. (Say); Mass. (Harris Cat.). ——Say, J. Acad. Phil. I, 23 (*Diopsis*). Amer. Entom. III, tab. lii. Wied. Auss. Zweid. II, 563, 8. Achias, etc. tab. ii, fig. 3. Gray, Griffith's Anim. Kingd. Ins. etc. p. 774, tab. lxii, fig. 2. Macq. Hist. Nat. Dipt. II, 486, 5. subbifasciata Fitch. ——New York. ——Fitch, First Report, etc. p. 70.

#### Ulidia Meig.

stigma Fab. — West Indies. — Fab. Ent. Syst. Suppl. p. 563, 72 (Musca). Syst. Antl. p. 303, 96 (id.). Syst. Antl. p. 278, 30 (Dacus obtusus). Wied. Auss. Zweifl. II, 565, 1.

# Actora Meig.

ferruginea Walk .-- Nova Scotia .-- Walker, List, etc. IV, 1066.

#### Platystoma Latr.

annulipes Macq. —Baltimore. —Macq. Dipt. Exot. 5e Suppl. p. 121, 10. Mém. de Lille, 1855.

6

# Homalura Meig.

plumbella Wied. — West Indies. — Wied. Auss. Zweifl. II, 574, 4

# Sciomyza Fall.

antica Walk.—U. States.—Walker, Dipt. Saund. IV, 400. nigripalpus Walk.—Huds. Bay.—Walker, List, etc. IV, 1068. parallella Walk.—U. States.—Walker, Dipt. Saund. IV, 401.

# Piophila Fall.

casei Lin.—Europe (aut.); North America (Harris).—Linné, Meigen, Fallen, etc. Harris, Ins. New Engl. p. 498. Stæger, Grænl. Antliater. nigriceps Macq.—North America.—Macq. Dipt. Exot. 4e Suppl. p. 303, 2. Mém. de Lille, 1850, p. 276, tab. xxviii, fig. 6. nigriceps Meig.—Europe (aut.); Huds. Bay (Walk.).—Meigen, etc. Walker, List, etc. IV, 1065.

pilosa Stæger.—Grænland.—Stæger, Grænl. Antliater.

# Sepedon Latr.

macropus Walk.---Jamaica.----Walker, List, etc. IV, 1078.

# Eumetopia Macq.

rufipes Macq. ——Philadelphia. ——Macq. Dipt. Exot. 2e Suppl. 88. Mém. de Lille, 1846, p. 104, tab. vi, fig. 2.

# Ectecephala Macq.

albistylum Macq.—North America.—Macq. Dipt. Exot. 4e Suppl. p. 280, 1. Mém. de Lille, 1850, p. 253, tab. xxv, fig. 17.

# Pyrgota Wied.

undata Wied.——North America.——Wied. Auss. Zweifl. II, 581, tab. x, fig. 6. Macq. Hist. Nat. Dipt. II, 424, 1, tab. xviii, fig. 23. Dipt. Exot. II, 3, 195. Mém. de Lille, 1842, p. 352, tab. xxvi, fig. 4. millepunctata Low.——North America.——Low, Neue Beiträge, etc. 2ter Beitrag (1854), p. 22.

valida Harris. — Cat. Ins. Mass. (Sphecomyia).

## Tetanocera Dumer.

Boscii Desv.—Carolina.—R. Desvoidy, Myod. p. 690, 8 (*Herbina*). canadensis Macq. — Canada (Macq.); New York, Florida, Georgia (Walk.).—Macq. Dipt. Exot. II, 3, 181, 4, pl. xxiv, fig. 5. Mém. de Lille, 1842, p. 338. Walker, List, etc. IV, 1083. cauta Harris.—Cat. Ins. Mass.

cribaria Harris.——Cat. Ins. Mass.

elata Lin. — Europe (aut.); Huds. Bay, Nova Scotia (Walk.). — Linné, Fabricius, Meigen, etc. Walker, List, etc. IV, 1082.

flavescens Lœw.——Carolina.——Lœw, Entom. Zeit. 1847, p. 123. guttularis Wied.——Montevideo (Wied.); New York (Walk.); Philadel-phia (Macq.).——Wied. Auss. Zweifl. II, 584, 3. Macq. Dipt. Exot. II, 3, 181, 3. Mém. de Lille, 1842, p. 338. Walker, List, etc. IV, 1083. plumosa Lew.—Sitkha.—Lew, Entom. Zeit. 1847, p. 201. saratogensis Fitch.—Fitch, First Report, etc. p. 68. struthio Walk.—Huds. Bay.—Walker, List, etc. IV, 1086. vicina Macq.—Philadelphia.—Macq. Dipt. Exot. II, 3, 180, 2. Mém. de Lille, 1842, p. 337, tab. xxiv, fig. 7.

#### Oxycephala Macq.

fenestrata Macq.—America.—Macq. Dipt. Exot. 4e Suppl. p. 281, 2, tab. xxvi, fig. 1. Mém. de Lille, 1850.

fuscipennis Macq. ——North America (Walk.); America (Macq.).—— Macq. Dipt. Exot. II, 3, 198, pl. xxvi, fig. 6, and Dipt. Exot. 4e Suppl. 281. Mém. de Lille, 1850. Harris, Ins. New Engl. p. 489 (Sphecomyia undata; synom. according to Walker). Walker, List, etc. IV, 1087.

maculipennis Macq.—Texas.—Macq. Dipt. Exot. 1e Suppl. p. 210, 2. Mém. de Lille, 1844, p. 338, tab. xviii, fig. 12.

nigripennis Gray. — Gray, Griffith's Anim. Kingd. pl. 125, fig. 5 (Myopa nigripennis). Walker, List, etc. IV, 1087 (synonymy according to Walker).

# Heteromyza Fall.

buccata Fall.—Europe (aut.); Nova Scotia (Walk.).—Fallen, Meigen, etc. Walker, List, etc. IV, 1088.

eriphides Walk.—Hnds. Bay.—l. c. 1088.

flavipes Walk.—Huds. Bay.—I. c. 1089. fusca Macq.—North America.—Macq. Dipt. Exot. II, 3, 263, 3. Mém. de Lille, 1842, p. 420, tab. xxv, fig. 9.

# Helomyza Fall.

fasciata Walk. - Nova Scotia. - Walker, List, etc. IV, 1094. lateralis Walk.—North America.—Walker, l. c. IV, 1095. quinquepunctata Say. --- Missonri River (Cow Island). --- Say, J. Acad. Phil. III, 101. Wied. Auss. Zweifl. II, 588, 3. tincta Walk.—Nova Scotia.—Walker, List, etc. IV, 1092. tibialis Zett.—Grænland.—Zetterstedt, Ins. Lapponica. Stæger, Grænl. Antliater.

# Notiphila Fall.

argentata Walk. -- U. States. -- Walker, Dipt. Saund. IV, 407. nitidula Fall. — Europe (aut.); Iluds. Bay (Walk.). — Fallen, Meigen, etc. Walker, List, etc. IV, 1098. producta Walk.——Huds. Bay.——Walker, List, etc. IV, 1099. repleta Walk.—Huds. Bay.—l. c. 1099. solita Walk.—U. States.—Walker, Dipt. Saund. IV, 406.

transversa Walk.—U. States.—Walker, Dipt. Saund. IV, 407. vitripennis Zett. -- Grænland. -- Zetterstedt, Ins. Lapponica. Stæger, Greenl. Antliater.

#### Ochthera Latr.

empidiformis Say.——Illinois (Say); Florida (Walk.).——Say, J. Acad. Phil. III, 99. Wied. Auss. Zweifl. II, 446. Macq. Hist. Nat. Dipt. II, 519, 2. Walker, List, etc. IV, 1100.

# Ephydra Fall.

hians Say. -- Mexico. -- Say, J. Acad. Phil. VI, 188. lutea Wied. — West Indies. — Wied. Auss. Zweifl. II, 593, 2. octonotata Walk. --- Huds. Bay. --- Walker, List, etc. IV, 1106. oscitans Walk.——Huds. Bay.——l. c. 1106. picea Walk.—Huds. Bay.——1. c. 1105. pinguis Walk.——U. States.——Walker, Dipt. Sannd. IV, 409. stagnalis Meig. -- Europe, Grænland. -- Meigen, etc. Stæger, Grænland's Antliater. striata Walk.——Huds. Bay.——Walker, List, etc. IV, 1107. Thomae Wied. -- St. Thomas. -- Wied. Auss. Zweifl. II, 593, 3.

#### Drosophila Fall.

albipes Walk.—U. States.—Walker, Dipt. Saund. IV, 410. brevis Walk.—U. States.—Walker, Dipt. Saund. IV, 411. cellaris Lin. -- Europe (aut.); Nova Scotia (Walk.). -- Linné, Fabricius, Meigen, etc. Walker, List, etc. IV, 1107. colorata Walk .-- New York .-- Walker, List, etc. IV, 1110. decemguttata Walk .-- U. States .-- Walker, Dipt. Saund. IV, 411. fronto Walk.—U. States.—Walker, Dipt. Saund. IV, 410. funebris Meig. — Europe (aut.); N. America (Macq.). — Meigen, etc. Macq. Dipt. Exot. 4e Suppl. 305, 6. Mém. de Lille, 1850, p. 278. guttifera Walk. --- Florida. --- Walker, List, etc. IV. 1110. linearis Walk.—U. States.—Walker, Dipt. Saund. IV, 411. mexicana Macq. — Mexico. — Macq. Dipt. Exot. II, 3, 259, 4. Mém. de Lille, 1842, p. 416, tab. xxxv, fig. 1. minuta Walk.——U. States.——Walker, Dipt. Saund. IV, 412. quadrimaculata Walk.—U. States.—I. c. p. 410. varia Walk. Georgia. Walker, List, etc. IV, 1109.

# Diastata Meig.

tenuipes Walk.—Huds. Bay.—Walker, List, etc. IV, 1112.

#### Meromyza Meig.

americana Fitch. -- New York. -- Fitch, First and Second Report, p. 299.

#### Siphonella Macq.

obesa Fitch. -- New York. -- Fitch, First and Second Report, p. 299.

# Agromyza Fall.

tritici Fitch. -- New York. -- Fitch, I. c. p. 303, tab. ii, fig. 1.

# Phytomyza Fall.

obscurella Fall.—Europe, Grænland.—Fallen, Meigen, etc. Stæger, Grænl. Antliater.

# Gymnopa Fall.

nigroaenea Walk. --- U. States. --- Walker, Dipt. Saund. IV, 413. tarsalis Walk .-- U. States .-- Walker, l. c.

# Chlorops Meig.

antennalis Fitch. --- New York. --- Fitch, First and Second Report, p. 300.

annulata Walk.——Huds. Bay.——Walker, List, etc. IV, 1119. assimilis Macq.——N. America.——Macq. Dipt. Exot. 4e Suppl. p. 306, 3. Mém. de Lille, 1850, p. 279, tab. xxviii, fig. 9.

atra Macq. --- North America. --- Macq. Dipt. Exot. 4e Suppl. p. 307, 6. Mém. de Lille, 1850, p. 280, tab. xxviii, fig. 12.

bistriata Walk.—Huds. Bay.—Walker, List, etc. IV, 1120. coxendix Fitch.—New York.—Fitch, l. c. p. 301 (Oscinis).

crassifemoris Fitch. —New York. —Fitch, l. c. p. 301 (Oscinis).

perflava Walk.—Huds. Bay.—Walker, List, etc. IV, 1120.

proxima Say.——Indiana.——Say, J. Acad. Phil. VI, 187. soror Macq.——North America.——Macq. Dipt. Exot. 4e Suppl. 306, 5. Mém. de Lille, 1850, p. 279, tab. xxviii, fig. 11.

testacea Macq.—North America—Macq. Dipt. Exot. 4e Suppl. 306, 4. Mém. de Lille, 1850, p. 279, tab. xxviii, fig. 10.

tibialis Fitch.—New York.—Fitch, l. c. p. 300, tab. i, fig. 5. vittata Wied.—West Indies.—Wied. Auss. Zweifl. II, 594, 1.

vulgaris Fitch. --- New York. --- Fitch, First and Second Report, p. 300, tab. i, fig. 4.

# Borborus Meig.

annulus Walk.—Huds. Bay.—Walker, List, etc. IV, 1129. carolinensis R. Desv. ——Carolina. ——R. Desv. Myod. p. 811, 2 (Scatophora).

planipes Harris. -- Cat. Ins. Mass.

#### Phora Latr.

aterrima Fab. -- Europe (aut.); Huds. Bay (Walk.). -- Fabricius

Meigen, etc. Walker, List, etc. IV, 1138. fuscipes Macq.—Europe (Macq.); Huds. Bay (Walk.).—Macq. Hist. Nat. Dipt. II, 627. Walker, List, etc. IV, 1136.

rufipes Fab. -- Europe (aut.); Huds. Bay (Walk.). -- Fabricius, Meigen, etc. Walker, List, etc. IV, 1136.

velox Harris .-- Cat. Ins. Mass.

#### Olfersia Wied.

- americana Leach. -- North America (Wied.); Mass. (Harris Cat.); Hnds. Bay, Georgia (Walk.).—Leach, Eprob. Ins. II, 2, pl. 27, fig. 1-3 (published in the Wernerian Trans. Edinb. 1817, Vol. II. Wied. Auss. Zweifl. II, 606, 1. Macq. Hist. Nat. Dipt. II, 641, 4. Walker, List, etc. IV, 1141.
- albipennis Say. ——Say, J. Acad. Phil. III, 101 (on Ardea Herodias). mexicana Macq. --- Mexico. --- Macq. Dipt. Exot. II, 3, 278, 5. Mém. de Lille, 1842, p. 435.
- propinqua Walk. Jamaica. Walker, List, etc. IV, 1141.

# Ormithomyia Leach.

- brunnea Oliv.——Carolina.——Oliv. Eneyc. Méth. VIII, 544, 6. confluens Say.——Penna.——Say, J. Acad. Phil. III, 103, 3 (O. confluenta). Wied. Auss. Zweifl. II, 611, 8.
- erythrocephala Leach. Brazil (Leach); Jamaica (Walk.). Leach, Eprob. Ins. p. 13, 3, pl. xxvii, fig. 4-6. Wied. Auss. Zweifi. II, 610, Walker, List, etc. IV, 1143.
- falconis Harris.—Cat. Ins. Mass. (in the first edition; omitted in the second).
- fulvifrons Walk. Jamaica. Walker, List, etc. IV, 1145.
- fusciventris Wied. -- Kentucky. -- Wied. Auss. Zweifl. II, 611, 9.
- laticornis Macq. Cuba (or Cape?) Macq. Hist. Nat. Dipt. II, 642, 3. Dipt. Exot. II, 3, 279, 2. Mém. de Lille, 1842, p. 436, tab. xxxvi,
- nebulosa Say. -- North America. -- Say, J. Acad. Phil. III, 101, 1 (on Strix nebulosa). Wied. Auss. Zweifl. II, 610, 6. Walker, List, etc. IV, 1143.
- pallida Say. --- North America. --- Say, J. Acad. Phil. III, 103, 2 (on Sylvia Sialis). Wied. Auss. Zweifl. II, 610, 7. Walker, List, etc. IV, 1143.
- unicolor Walk.—Jamaica.—Walker, List, etc. IV, 1144. vicina Walk .- Jamaica .- Walker, l. c. p. 1144.

# Melophagus Latr.

- depressus Say .- Penna. -- Say, J. Acad. Phil. III, 104 (on Cervus virginianus). Wied. Auss. Zweifl. II, 614, 2.
- ovinus Lin. Europe (aut.); North America (Fitch). Fitch, Survey, etc. p. 797.

# Hippobosca Linn.

equina Lin. -- Europe (aut.); North America (Kirby). -- Linné, etc. Kirby, North Amer. Zool. Ins. p. 316.

#### Strebla Wied.

avium Macq.——St. Domingo (on pigeons and parrots).——Macq. Dipt. Exot. 5e Suppl. 127, 2. Mém. de Lille, 1855.

vespertilionis Fab.——South America (Fab.); Jamaica (Walk.).—
Fab. Syst. Antl. p. 339, 6 (Hippobosca). Wied. Anal. Ent. p. 19, fig. 7. Auss. Zweifl. II, 612, 1, tab. 10, fig. 13. Macq. Hist. Nat. Dipt. II, 637, 1, pl. xxiv, fig. 7. Walker, List, etc. IV, 1146.

# ADDITIONS.

Insert on page 12, between the genera Simulium and Scatopse-

# Oecacta Poey.

furens Poey. — Cuba. — Poey, Memorias, etc. p. 236, tab. xxvii.

#### ADDITION TO THE LIST OF AUTHORITIES.

Poey, Felipe.—Memorias Sobre la Historia Natural de la Isla de Cuba, Tome Io. Habana, 1851-54, contains the description of

Oecacta furens Poey. — Gen. et sp. nov.

While the last sheet of this Catalogue was in press, the 11th volume of the Linnaa Entomologica (Berlin, 1857) was received, containing a very able paper of Dr. Gerstäcker, on the Strationyidæ (Beitrag zur Kenntniss der exotischen Stratiomyiden). As this article describes several new species from Cuba and Mexico, the following changes and additions in the Catalogue become necessary.

On page 14, the genus Cyphomyla, should read thus:-

# Cyphomyia Wied.

albitarsis Fab.—Guyana, Columbia (Gerst.); Yucatan (Macq.).—Fabr. Syst. Antl. p. 80, n. 12 (Stratiomys). Macq. Dipt. Exot. 1er Suppl. p. 48, 3. Mém. de Lille, 1844, p. 176 (C. fencstrata). Walker, List, etc. V, 16 (id.). Gerstäcker, l. c. p. 300.

elegans Wied. - Mexico. - Wied. Auss. Zweifl. II, 58, 8. Walker, List, etc. V, 15. Gerstäcker, l. c. p. 316 (gen. nov. Euparyphus).

fenestrata Macq. — Vid. albitarsis.

pilosissima Gerst. — Mexico. — Gerstäcker, l. c. p. 292. tomentosa Gerst. — Mexico. — Gerstäcker, l. c. p. 294.

varipes Gerst. Mexico. Gerstäcker, l. c. p. 283.

On page 15, between Stratiomys emarginata and Flaviceps, there must be inserted-

euchlora Gerst. — Mexico. — Gerstäcker, l. c. p. 328. fenestrata Gerst. Mexico. Gerstäcker, l. c. p. 327.

On page 17, below, a new species must be added to genus Chauna. erruginea Gerst.—Cuba.—Gerstäcker, l. c. p. 340, tab. iii, fig. 7.

On page 26, insert among the Acroceride, the genus

## Eulonchus Gerst.

smaragdinus Gerst.—California.—Gerstæcker, Stett. Entom. Zeit. 1856, p. 360.

# INDEX.

Acanthomera, 26 Acinia, 79, 80 Acrocera, 26 Acroceridæ, 26 Actora, 81 Agromyza, 85 Anisomera, 9 Anisotamia, 42 Anopheles, 2 Anthomyia, 73 Anthracia, 66 Anthrax, 38 Apatomyza, 43 Aporosa, 7 Araba, 66 Aricia, 74 Arthria, 12 Ascia, 48 ASILIDE, 28 Asilus, 35 Asindulum, 9 Asthenia, 4 Atherix, 37 Atomosia, 31

Baceha, 48
Bi-ticoisia, 65
Beris, 13
Bibio, 12
Bittacomorpha, 8
Blepharipeza, 64
BOMBYLIARII, 38
Bombylius, 42
Borborus, 85

Caenomyia, 18
Caenosia, 75
Calliphora, 70, 71, 72, 73
Calobata, 80
Camptoncura, 80
Camptonomya, 5
Carallia, 67
Cecidomyia, 4
Cephalemyia, 62
Ceratophyia, 46
Ceratopogon, 4
Ceraturgus, 28
Ceria, 46

Ceroplatus, 10 Chauna, 17, 88 Chionea, 9 Chironomus, 3 Chlorops, 85 Chrysogaster, 50 Chrysomyia, 17, 71, 72, 73 Chrysopyla, 37 Chrysops, 24 Chrysotoxum, 47 Chrysotus, 58 Chyliza, 80 Chymophila, 46 Cistogaster, 63 Clitellaria, 17 Conops, 60 CONOPSARIÆ, 60 Cordylura, 76 Corethra, 2 CORIACEÆ, 86 Ctenophora, 8 Culex, 1 Curtoneura, 72 Cuterebra, 61 Cylindrotoma, 6 Cyllenia, 43 Cynomyia, 68 Cyphomyia, 14, 88 Cyrtus, 26

Dacus, 77, 81 Dasypogon, 28 Degeeria, 66 Dejeania, 64, 65, 67 Delphinia, 77 Dexia, 69 Diabasis, 24 Dialysis, 18 Dialyta, 75 Diamesa, 3 Diastata, 84 Dichelacera, 19, 23 Dietya, 64, 79 Dilophus, 12 Dimeraspis, 47 Dinera, 70 Dioctria, 28 Dionomus, 9

Diopsis, 81 Diphysa, 14 Discocephala, 28, 29 Dixa, 9 Dolichopus, 59 Doros, 51 Dolichopodes, 57 Drapetis, 46 Drosophila, 84

Echinomyia, 64, 66, 67 Ectecephala, 82 EMPIDÆ, 45 Empis, 45 Ephippium, 17Ephydra, 84 Epistrophe, 50 Erax, 33 Eriogaster, 45 Erioptera, 5 Eriphia, 75 Eristalis, 54 Ervia, 63 Estheria, 69, 70 Euarmostus, 28 Eumetopia, 82 Eumerus, 48 Euparyphus, 88Exoprosopa, 39, 40, 41

Fabricia, 64, 67 Fannia, 75

Gastrus, 62 Geron, 43 Gloma, 45 Gonia, 67 Gonypes, 36 Graphomyia, 70 Gymnopa, 85 Gymnosoma, 63

Hæmatopota, 25 Heliodromia, 46 Helomyza, 83 Helophilus, 54 Hemerodromia, 46 Hemyda, 63 Henops, 26 Herina, 77, 78. Hermetia, 14 Hesperinus, 9 Heteromyia, 4 Heteromyza, 83 Hilara, 45 Hippobosca, 86 Hirmoneura, 38 Hirtea, 13 Homalura, 82 Hyalomyia, 63 Hybos, 44

Hybernia, 44 Hybernia, 74 Hystricia, 64, 67

Idia, 68 Illigeria, 64 Imatisma, 55

Jurinia, 64, 65, 66, 67

Lampria, 30 Laphria, 30 Lasioptera, 4 Lastaurus, 28 Latreillia, 65, 67 Lauxania, 78 Leja, 10 Lepidophora, 44 LEPTIDES, 36 Leptis, 36 Leptogaster, 36 Limnobia, 5 Limnobiorhynchus, 6 Limnophila, 6 Linnemyia, 65 Lispe, 76 Lissa, 80 Lissomyia, 80 Lonchaea, 78 Loxocera, 80 Lucilia, 71, 72, 73 Lyroneurus, 57

Mallophora, 32 Mallota, 54 Marshamia, 67 Masicera, 65 Meckelia, 77 Medeterus, 58 Megapoda, 30 Megaprosopus, 70 Megarhina, 1 Melanophora, 66, 67 Melophagus, 86 Merodon, 53 Meromyza, 84 Mesembrina, 68 Mesophila, 46 Microdon, 47 Micropalpus, 65, 66, 67 Micropeza, 81 Microphorus, 44 Microphthalma, 70 Midas, 27 MIDASII, 27 Milesia, 49 Miltogramma, 63 Mixogaster, 47 Mixtemyia, 48 Molobrus, 11 Mulio, 47 Musca, 70

INDEX. 91

Muscidæ, 62 Mycetobia, 9 Mycetophila, 10 Myopa, 60 Alyophora, 68, 69

Nemopoda, 78 Nemotelus, 16 Nerina, 74 Nerius, 81 Notiphila, 83

Ochromyia, 72 Ochthera, 84 Oenæa, 26 Ocydromia, 44 Ocyptamus, 53 Ocyptera, 63 Odontomyia, 14, 15, 16 Occacta, 88 OESTRACIDE, 61 Oestrus, 62 Ogeodocera, 42 Olfersia, 86 Ommatius, 36 Ophyra, 73 Ormin, 72 Ormidia, 56 Ornithomyia, 86 Ortalis, 77 Ortochile, 59 Oscinis, 85 Oxycephala, 83 Oxycera, 16

Pachurhina, 7 Paugonia, 18 Pantophthalmus, 26 Paragus, 48 Parthenia, 63 Peckia, 68, 69 Pedicia, 5, 6 Peleteria, 66 Penthetria, 12 Phasia, 62 Pheneus, 36 Pherbina, 82 Phora, 85 Phormia, 72  $Phorocera,\,65$ Phrissopodia, 69 Phthiria, 43 Phytomyza, 85 Piophila, 82 Pipiza, 50 Pipunculi, 57 Pipunculus, 57 Plagiocera, 49 Platypalpus, 46 Platypeza, 57 PLATYPEZINE, 57 Platystoma, 81

Platyura, 9 Plecia, 12 Ploas, 43, 44 Polydonta, 53 Porphyrops, 58 Prionella, 79, 80 Prochyliza, 80 Proctacanthus, 34 Prosena, 61 Psarus, 47 Psilopus, 57 Psilota, 50 Psorophora, 1 Psychoda, 5 Pterodontia, 26 Ptiloccra, 64 Ptilogyna, 8 Ptychoptera, 9 Pyrellia, 72 Pyrgota, 82 Pyropa, 76

Rachicerus, 18 Rhagio, 36, 37 Rhamphidia, 6 Rhamphomyia, 45 Rhingia, 50 Rhyphus, 13 Rivellia, 77

Sarcophaga, 68 Sargus, 17 Scacva, 50, 51, 52 Scatophaga, 76 Scatophora, 85 Scatopse, 12 Scenopinus, 38 Sciara, 11 Sciomyza, 82 Sciophila, 10 Scopolia, 66 Senotainia, 64 Sepedon, 82 Sepsis, 78 Sericocera, 67 Sericomyia, 53 Sicus, 18 Silvius, 19 Simulium, 11 Siphonella, 84 Somula, 47 Spania, 44 Sphaerophoria, 51, 52 Sparnopolius, 42 Sphecomyia, 47, 82, 83 Sphyracephala, 81 STOMOXYDÆ, 61 Strebla, 87 Stomoxys, 61 STRATIOMYDÆ, 13 Stratiomys, 14, 88 Strauzia, 77

# INDEX.

Subula, 18
Suneches, 37
Symplecta, 6
Syritta, 48
Syrphici, 46
Syrphus, 50
Systropus, 44
Tabani, 18
Tabanus, 19
Tachina, 64
Tachydromia, 46
TACHYDROMIÆ, 46
Tæniaptera, 81
Tanypus, 4
Tephritis, 77, 79, 80
Tetanocera, 82
Tetanura, 80
Theresia, 73
Theresia, 10

Thereva, 38
Tipula, 7
Tipulariæ, 1
Toxomerus, 48
Toxophora, 44

Trchocera, 9
Toxorhinia, 6
Trichopoda, 63
TRINEURÆ, S5
Tropidia, 53
Trupanea, 32
Trypeta, 78
Trypicra, 66
Trypoderma, 61, 62

Ulidia, 81 Urophora, 79, 80

Volucella, 56

Xylophagus, 18 Xylophagus, 18 Xylota, 49 Xylotomæ, 38

Zelia, 69, 70 Zenillia, 66 Zodion, 60

PUBLISHED BY THE

SMITHSONIAN INSTITUTION.

APRIL, 1858.

£

# APPENDIX

#### TO THE

# SMITHSONIAN CATALOGUE OF THE DESCRIBED DIPTERA OF NORTH AMERICA.

#### BY BARON R. OSTEN SACKEN.

остовек, 1859.

The following N. American species have been omitted in this enumeration, principally because the works containing them have not been procured in time:—

- Cuterebra frontinella Clark.——Illinois.——Bracy Clark, of the insect called *Oistros* by the ancients, etc., in the Trans. Lin. Soc. XV, 402, 1826.
- Cuterebra emasculator Fitch.—U. States.—A. Fitch, in the Trans. N. Y. State Agric. Soc. XVI, 482, 1856.
- Calobata ruficeps Guérin.—Cuba.—Guérin, Iconogr. du règue anim. III, 553, tab. ciii, fig. 7.
- Leptis Servillei Guérin.—U. States.—Ibid. III, 541, tab. xlvi, fig. 3. Anthomyia impudica Reiche.—Greenland —Reiche, Bullet. Soc. Entom. de France, 1857, 8. (It is a Cordylura according to Loew, Berliner Ent. Zeitschr. 1858, 347.)
- Pangonia macroglossa, Gymnoplistia annulata,——These two species, by Westwood, are contained in his Insectorum novorum exoticorum, etc. (London and Edinburgh Philos. Mag. 1835), quoted in the Catalogue, etc., among the authorities on page xvii. By some mistake they have been omitted in the enumeration of the species. The first must be inserted on page 19, after Pang. incisuralis Say, the second on page 8, before Ctenophora.
- Chrysotoxum bicinctum Meig.—This European species is mentioned by Mr. Loew as occurring in N. America (Verh. Zool. Bot. Ver. in Wien, 1856.)
- Syrphus anchoratus Macq. from Brazil, occurs also in N. America. (Conf. Macq. Dipt. Exot. etc., at the end of the description of this species.)

A few more N. American diptera have been published since the appearance of the *Catalogue*, or almost contemporaneously with it; they are contained in the following works:—

WALKER, F.—Characters of undescribed diptera in the collection of W. W. Saunders, etc. In the *Trans. Entom. Soc.*, new series, vol. iv. part 5th (1857); part 6th (1858). Ten new North American species.

Loew, H.—In the Berliner Entomol. Zeitschr, vol. ii. p. 109, 1858. Plecia longipes, n. sp. New Orleans.

"In the Verhandl. Wien. Zool. Bot. Ver. 1858, p. 592; Tabanus septemtrionalis, n. sp. Labrador.

Bioot, J.—In Ramon de la Sagra's Historia fisica de la Isla de Cuba, vol. vii. p. 329, 199 (1857). Several new diptera from Cuba.

Dipterorum aliquot nova genera. (In Revue et Magasin de Zoologie, 1859, No. 7.) Cryptineura hieroglyphica, nov. gen. et spec., Orthoneurae proximum. N. Orl.

Prof. Loew, the well-known German dipterologist, communicated to the author of the Catalogue, etc., several observations respecting the nomenclature and the systematic arrangement adopted in this work; they may find their place here:—

The generic name Asthenia (p. 4) has been given long ago to a hymenopterous insect; the same genus has been described by Macquart under the name of Blepharicera, and by Loew under that of Liponeura. Macquart's name, modified into the more correct Blepharocera, ought to be adopted.

The subdivision of Leptis (page 36) in two genera, Leptis and Chrysopila, is recommended. The following species, according to Mr. Loew, belong to Leptis: albicornis, Boscii, intermedia, mystacea, punctipennis, vertebrata.

Syneches (page 37) does not belong to the Leptides, as Walker has it, but to the Hybotinæ (page 44). As some of the species enumerated in the genus Hybos might also belong to Syneches, it would be, perhaps, better to drop the latter name for the present, and to place S. simplex Walk. under the head of Hybos.

The orthograph Therena is, according to Mr. Loew, more correct than Thereva (page 38).

There is every reason to replace the name *Heleodromia* (page 46) by that of *Clinocera* Meig.

Myopa stylata (page 61) is no Myopa at all, and should be called, therefore, Stylogaster stylatus.

If the family of *Muscidæ* (p. 63) is adopted in such a wide sense as has been done in the *Catalogue*, there is no reason to separate the *Stomoxydæ* (p. 61) from them.

The genus Prosena (page 61) has its true location next to Dexia.

Instead of the horrible name of Cuterebra (p. 61), Trypoderma would do botter, and has been more in use already.

Homalura plumbella (p. 82) is a Siphonella.

The genus Oxycephala (page 83) is identical with Pyrgota, and must be dropped. Oxyc. fuscipennis Macq.=Pyrgota undata. Ox. fenestrata is a variety of the same species. The genus Pyrgota must be removed to the immediate vicinity of Ortalis.

Meromyza and Siphonella should be placed next to Chlorops.

To these remarks of Mr. Loew I would add that the generic name of Aporosa (page 7) should be replaced by that of Geranomyia, previously given by Mr. Haliday to the same genus, and that the genus Hesperinus (page 9), placed by its author himself among the Tipulidæ terricolæ, be-

longs to the T, fungicolx, and should be removed to the immediate vicinity of Platyura.

I have to advert, finally, to some misprints discovered in the Catalogue since its publication:—

Page xii, line 9 from the bottom, for borealis read cerealis.

- ' xv, lines 8 and 9 from the top, for 6th read 7th.
- " xv, " 15, 18, and 21 from the top, for 7th read 8th.
- " 7, line 12 from the top, for borcalis read arctica.
- " 21, " 19 from the bottom, for D. abdominalis read Asilus abdominalis, and strike out, distinct from the former.
- " 21, " 21 from the bottom, after 426 add (Discocephala).
- " 30, " 5 from the bottom, for lasipes read lasipus.
- " 31, " 22 from the top, for rubirventris read rubriventris.
- " 35, " 10 from the top, after abdominalis Say put vid. Dasypogen Acacus, and strike out all the rest to present group.
- " 37, " 11 from the bottom, for Chrysopyla read Chrysopila.
- " 37, " 7 from the bottom, for Suneches read Syneches.
- " 39, " 1 from the bottom, strike out Indiana.
- " 41, " 10 from the top, for Mexico read N. America.
- " 41, " 19 from the top for nycthomera read nycthemera.
- "42, "2 from the top, for xxix, fig. 11, read xvi, f. 2.
- " 43, " 4 from the bottom, for Walker read Macq.
- " 44, " 2 from the top, for facilities read focilities.
- " 44, " 17 from the top, for Suppl. p. 1 read 1er Suppl.
- " 46, " 7 from the top, for Heliodromia read Heleodromia.
- " 48, " 4 from the top, after 543 add id. Dipt. Saund. III, plate V. fig. 3 (figured, but not mentioned in the text.)
- " 48, " 15 from the top, add Wied. Auss. Zweifl. II, 94, 4.
- " 48, " 25 from the top, for Suppl. p. 1 read 1er Suppl.
- " 50, " 17 from the top, after 1855 add p. 97.
- " 53, " 20 from the top, for fuscipennis read fascipennis.
- " 54, lines 20, 24, and 26 from the top, for VI read VII.
- " 55, line 8 from the top, for cupreovittatus read cuprovittatus.
- " 59, " 2 from the top, for l. c. read List etc.
- ' 75, " 2 from the bottom, for Cacnosia read Cocnosia.
- " 78, " 3 from the top, add before Mem. de Lille, etc., Dipt. Exot. II, 3, 207.
- " 79, " 16 from the top, for cutta read culta.
- "So, in the last line, for 1054 read 1053.
- " 82, line 10 from the bottom, add Harris Ins. Injur. to vegetation.
- " 86, between the 3d and 4th line insert, Fam. XXII, CORIACEAE.

# R. OSTEN SACKEN.



# SMITHSONIAN MISCELLANEOUS COLLECTIONS.

# CATALOGUE

OF THE DESCRIBED

# LEPIDOPTERA

OF

# NORTH AMERICA.

PREPARED FOR THE SMITHSONIAN INSTITUTION.

JOHN G. MORRIS.



WASHINGTON:
SMITHSONIAN INSTITUTION.
MAY, 1860.

# ACCEPTED FOR PUBLICATION

остовек 1, 1859.

JOSEPH HENRY,

Secretary S. I.

# PREFACE.

In the preparation of this Catalogue all accessible books have been consulted, and it is believed that no descriptions of American Lepidoptera have been overlooked. The works which my own library and those of the Smithsonian Institution and the Academy of Natural Sciences of Philadelphia do not contain, were kindly lent by entomological friends. The "authorities," enumerated on a subsequent page, will show the extent of my researches.

The classification adopted is that recommended in part by Herrick-Schaeffer and Walker, but in some of the families of the Noctuidae I have followed Guénée. A catalogue like the present is not the place for strict scientific classification; that must be left for a systematic descriptive work.

As far as p. 49, Guénée's volumes have been cited according to their number as regards the subject, ex. gr. vol. V. of the Suites à Buffon, is vol I. of Noctuelites, and I have thus referred to them, but after p. 49 they are quoted according to the Suites.

I am well aware of the imperfections of this Catalogue in many respects, but it will still give a fair exhibition of what has been accomplished in this department.

The Mexican and West Indian species have been included, or most of them, at the earnest entreaty of several entomologists; firstly, because some of the species are common to the continent and the islands; and, secondly, because it is not impossible that before many years our political boundaries may extend over some of those countries.

Although this Catalogue enumerates over 2000 species, the greater number of which occur in the United States proper, yet there is reason to believe that hundreds yet remain to be disco-

iv PREFACE.

vered. Our new territorial acquisitions in the West are constantly affording remarkable insect novelties, all of which will be described in the course of time by our naturalists. The science of entomology is rapidly advancing in our country; every year the number of students is increasing, and discoveries of new species in all the orders are of frequent occurrence.

It will be observed that the Catalogue contains very few microlepidoptera. That section has, as yet, received but little attention in the United States; Dr. B. Clemens, of Easton, Pa., however, is now making a special study of it, and has kindly furnished me with the names of his species as far as published. Dr. Herrick-Schaeffer, of Ratisbon, Bavaria, has described some other species, which may hereafter be added to this Catalogue as an Appendix.

I desire in this place publicly to express my obligations for the very valuable aid afforded me by Professor S. S. Haldeman, of Columbia, Pa., by Dr. J. L. Leconte, of Philadelphia, and by Dr. B. Clemens, of Easton, Pa. Other gentlemen have contributed material and counsel, for all of which I am truly grateful.

JOHN G. MORRIS.

Baltimore, March, 1860.

# AUTHORITIES.

- Agass.—Lake Superior, its physical character, vegetation, and animals, compared with those of other and similar regions. By Louis Agassiz. Boston, 1850. Svo.
- Ann. Soc. Ent.—Annales de la Société Entomologique de France. 1832-44, Paris.
- Boisd. et Lec.—Histoire générale et Iconographie des Lepidoptères et des Chenilles de l'Amérique Septentrionale par le Dr. Boisduval et M. Le Conte, de New York, tom I. Paris, 1833.
- Boisd. Spec. Gen.—Species Général des Lépidoptères, par le Dr. Boisduval. Paris, 1836.
- C. B. M.—Catalogue of the British Museum. Lepidoptera in Pts. I-XIX. 12mo. 1844-59, London.
- CATESEY.—The Natural History of Carolina, Florida, and the Bahama Islands, &c. &c. By Mark Catesby, F. R. S. 2 vols. fol. London. 1754.
- CLEMENS.—Article V. in Jour. Acad. Nat. Sciences of Philadelphia, New Series, vol. IV—Synopsis of N. Amer. Sphingidae. 1859.
  - " Proceedings of the Academy of Nat. Sciences of Philadelphia, for 1859, 1860—Contributions to American Lepidopterology—No. 1, Sept. 1859; No. 2, Nov. 1859; No. 3, Jan. 1860.
- Clerck.—Icones insectorum rariorum. Stockholm, 1759-64.
- CRAM.—Cramer's Papillons Exot. des trois parties du monde, &c. Utrecht, 1775-79. 4to.
- Donov.—Donovan's Naturalist's Repository. London, 1835. 2 vols. 8vo. Doubleday and Hewitson.—Genera of Diurnal Lepidoptera. London.
- Doubled.—Doubleday in Gray's Zoolog. Magazine. London.
  - " Doubleday in Annals of Natural History. 1844, London.
- "Doubleday in The Entomologist. 1840-42, London.

  DRUR.—Drury's Illustrations of Nat. Hist. 3 vols. 1770-73, London.

  (Also new edition by Westwood, 1837.)
- Fab.—Fabricii Entomologia Systematica. 1792-98, Hafniae.
- Fabricius.—Entomologia Systematica emendata et aucta, etc. Hafniae, 1793.
  - " Mantissa Insectorum, etc. 1787, Hafniae. Svo.
- Fisher.—Proceedings of the Acad. Nat. Sciences for 1858. Philadelphia.

Fitch.—Transactions of the New York State Agricult. Soc., &c. &c. Report I, 1855; II, 1856; III, 1857; IV, 1858; V, 1859.

- GN.—GUÉNÉE.—Histoire naturelle des Insectes—Species général des Lépidoptères par MM. Boisduval et Guénée. Tome cinquième. Noctuélites par M. A. Guénée. Vols. I, II et III. Ouvrage accompagné de Planches. Paris, 8vo. 1852.
  - " Deltoïdes et Pyralites. Tome huitième. 1854.
  - " Uranides et Phalénites. Tomes neuvième et dixième. Vol. I et II. 1857.

Guér.-Guérin in Griffith's Cuvier's Règne Animal.

Godt.-Godart in Encyclopédie Méthodique, vol. IX.

HARR.—Harris's Treatise on some of the Insects of New England which are injurious to vegetation. Boston, 1842. Second edition, 1852.

" Harris's Sphinges in Silliman's Journal, vol. XXXVI. 1839.

Herbst und Jablonski, Schmetterlinge. Berlin, 1783-1804.

Herr.-Schaeff.—Herrick-Schaeffer's Fortsetzung von Hübner. Batisbon, 1843.

" Herrick-Schaeffer's Neue Exot. Ratisbon.

HEWITSON'S Exotic Butterflies. London.

Hübn.-Hübner.-Exotischer Sammlung. 1806, 4to. (without paging).

- Zutraege zur Sammlung exotischer Schmetterlinge. 1818, 4to. (paging from 1 to 1000). Augsburg.
- " Verzeichniss bekannter Schmetterlinge. 8vo. 1816.

Kirby.—Fauna Boreali-Americana. Part IV. Insects, by Kirby. Norwich, 1837. 4to.

Kirt.-Kirtland in Silliman's Journal, vol. XIII, new series.

LATR.—Latreille in Voyage de Humboldt et Bonpland. Vol. 3. Paris, 1811.

" Latreille in Humboldt and Bonpland's Recueil d'Observations de Zoologie d'Anatomie comparée, &c. &c. 2 vols. 4to. Paris, 1811-33.

LINN.-LINNAEUS.-Mantissa. 1767. 8vo.

" Systema Naturae. Ed. 13, 1767.

" Amoenitates Academicae. Lugd. Bat., 1749.

Lucas.—Hist. Naturelle des Papil. exotiques. Paris, 1858.

Ménétriés.—Bulletin de la Soc. Impér. des Naturalistes. Moscow.

Merian.—Ins. Surinam, folio. Amsterdam, 1705.

NAT. LIB. - Jardine's Naturalist's Library, Vol. XXXVI.

Pal. Beauv.—Palisot de Beauvois, Insectes recueillis en Afrique et en Amérique. Paris, 1805. Fol.

Peale.—Lepidoptera Americana. 4to. Philadelphia, 1833.

Peck .- Agricultural Repository of Massachusetts, vol. V.

Poey.—Memorias sobre la historia naturale de la Isla de Cuba, vol. I. Habana, 1851.

SAY.—American Entomology. 3 vols. 1817-28. Philadelphia.

- Seea.—Locupletissimi rerum nat. thesauri accurata descriptio., &c. &c. 4 vols. Amsterdam, 1734-65. Fol.
- SM. ABB.—The Natural History of the Rarer Lepidopterous Insects of Georgia, with the plants on which they feed. By John Abbott. Edited by J. E. Smith. 2 vols. folio. London, 1797.
- Stoll.—Supplément à l'Ouvrage Cramer's Papillon's exotiques. Amsterdam, 4to. 1787.
- Westwood.—Arcana entomologica. 2 vols. 4to. London, 1840.
  - " Annals of Natural History. 2d ser. vol. XV.
  - " Edition of Drury. 1837.

Zeller.—Oken's Isis, 1848.

viii ERRATA.

# ERRATA ET ADDENDA.

Page 9, transfer Eres. ezorias to same genus on p. 6.

- " 15, Lim. textula not tentula.
- " 16, transfer Glauc. venosa and ruficeps to genus Lithosia.
- " 16, for **Trochilium** Steph. read Scop.
- " 16, add aceris Clemens, Pr. A. N. Soc. 1860, to Trochilium.
- " 18, erase An. coniferarum as synonym of S. kalmia.
- " 18, for leucophaeta read leucophaeata.
- " 19, after forestan erase mark of interrogation.
- " 19, for ficus Merian read Drury.
- " 21, transfer D. imperialis to genus Ceratocampa.
- " 22, transfer Clisiocampa to BOMBYCIDAE.
- " 22, angulosa Sm. Abb., not Doubleday.
- " 23. add albosigma and vau, Fitch, to Clostera.
- " 23, transfer opercularis and pyxidifera (Lagoa) to Limacodes.
- " 24, erase epimenis as syn. of Spil. virginica.
- " 26, transfer Lycomorpha to Lithosiadae.
- " 26, NOT vittata Harr. but miniata Kirby.
- " 27, change A. xylinoides to xyliniformis.
- ' 29, add pallens Eur. et U. S. to genus Leucania.
- " 29, add typhae U. S. to genus Nonagria.
- " 31, change Marmotinia to Marmorinia.
- " 32, change C. vidua to C. viduata.
- " 32, erase genus Claryma and the two species.
- " 34, erase ref. to Guénée in E. capit. and petric.
- " 37, under Galgula change partita to subpartita.
- " 44, omit Guén. as authority for Phurys perlata.
- " 45, erase genus Marmorinia and species.
- " 45, insert Fam. HERMINIDAE under Hypena.
- " 46, insert after Herminia genus Epipaschia Clemens, superatalis Clem.—Conn.—Pr. A. N. Soc. Phil. Jan. 1860.
- " 47, for magualis read magnalis.
- " 50, for Penthina Treitschke read Carpocapsa Treits.
- " 62, transfer **Doryodes** to p. 48.
- In all places where Doubleday is cited as authority for species read Walker

The edition of Harris's Insects of Mass. quoted is that of 1842.

# CATALOGUE

 $\mathbf{or}$ 

# NORTH AMERICAN LEPIDOPTERA.

# Fam. I. PAPILIONIDAE.

# Papilio Linn.

- turnus Linn.—Hudson's Bay to Florida.—Linn. Mant. I, 536. Fab. Syst.
  Ent. 452, 41. Fab. Spec. 11, 16, 66. Catesby's Ins. of Ga. pl. 97.
  Godt. Encyc. IX, 55. Boisd. et Lec. pl. 6, 7. Say's Amer. Ent. III,
  pl. 40. Boisd. Spec. gén. 338. P. alcidamus Cram. 4, t. 38, A. B.
  P. lentilochus Linn.
- glaucus Linn.—Middle and South. States (var.? turnus.)—Linn. Syst. Nat. II, 746. Fab. Syst. Ent. 445. Cram. pl. 139, f. A. B. Godt. Encyc. IX, 60. Boisd. et Lec. pl. 8, 9. Boisd. Spec. gén. 335.
- troilus Linn.—U. S., Mex., Jam.—Linn. Syst. Nat. II, 746. Fab. Syst. Ent. 444. Cram. t. 18, 207, f. A. B. C. Drur. t. 11, f. 3—5. Godt. Encyc. IX, 62, 97. Boisd. et Lec. pl. 10. Boisd. Spec. gén. 334. P. iloneus Sm. Abb. I, pl. 2. Hübn. Samml. exot.
- philenor Linn.—U. S., Mex.—Linn. Mant. I, 535. Fab. Syst. Ent. 445.
  Say's Amer. Ent. pl. 1. Sm. Abb. I, pl. 2, 3. P. astinous Drur. I, pl. 11, f. 1—4. Cram. 1, 18, t. 208, f. A. B.
- asterias Fab.—U. S., Mex.—Fab. Syst. Ent. 111, pl. 1. Cram. 385, G. D. Godt. Encyc. IX, 58. Drur. I, t. 2. Boisd. Spec. gén. 332. Harris's Ins. Mass. 212. Boisd. et Lec. pl. 4. P. troilus Sm. Ab. I, pl. 1. P. ajax Clerck. Icon. t. 83. P. polyxenes Fab. Syst. Ent. 444.
- thoas Linn.—Southern States, Mex., Jam.—Linn. Mant. I, 536. Fab. Syst. Ent. 454. Cram. 19, t. 38. Drur. I, pl. 22. Godt. Encyc. IX, 62. Boisd. et Lec. pl. 12. Boisd. Spec. gén. 355. P. cresphontes var. Cram. 165, f. A. B.
- calchas Fab.—South. States.—Fab. Syst. Ent. 453. Drur. I,t. 19. Godt. Encyc. IX, 59. Boisd. et Lec. pl. 5. Boisd. Spec. gén. 337. P. palamedes Cram. 8, t. 93, A. B.

```
ajax Linn.—South. States.—Linn. Syst. Nat. 750, 32. Fab. Syst. Ent.
            Sm. Abb. I, pl. 4. Beauv. IV, pl. 11, 70. Godt. Encyc. IX,
      455.
      53. Boisd. et Lec. pl. 1. Boisd. Spec. gén. 258. P. marcellus
      Cram. t. 98, G. H.
marcellus Cram. -South and West. - Cram. 98, F. G. Godt. Encyc. IX,
      53. Boisd. et Lec. pl. 2. Boisd. Spec. gén. 257.
sinon Fab.—Florida, Jam., Cuba.—Fab. Syst. Eut. 452. Cram. 27, t. 317.
      Boisd, et Lec. pl. 3. Godt. Encyc. IX, 53. Boisd. Spec. gén. 261.
      P. protesilaus Drur. 3, pl. 22, f. 3, 4.
antilochus Linn. Syst. Nat. 11, 751, 35. Fab. Syst. Ent. 451. Catesby
      II, pl. 83. Boisd. Spec. gén. 340. (Boisduval thinks that P. anti-
      lochus is P. turnus, with artificial tails. It has been seen by no one
      since Linne and Catesby.)
Villiersii Boisd. et Lec. - Flor., Cub. - Boisd. et Lec. pl. 14. P. devilliers
      Godt. Encyc. IX, Suppl. 810. Boisd. Sp. gén. I, 325.
rutulus Lucas.—California.—Lucas, Ann. Soc. ent. X, 2me Sér. 279.
eurymedon Lucas.—California.—Lucas, Ann. Soc. ent. X, 2me Sér. 280.
zolicaon Lucas.—California.—Lucas, Ann. Soc. ent. X, 2me Sér. 281.
celadon Lucas.-N. Am.-Lucas in Guér. Rev. Zool. 1852, 130.
arcesilaus Lucas.-N. Am.-Lucas in Guér. Rev. Zool. 1852, 131.
polydamus Linn.—Flor., Cuba, Braz.—Linn. Syst. Nat. II, 747. Fab.
      Syst. Ent. I, 457. Cram. 211. Drur. I, pl. 17. Godt. Encyc. IX,
      39. Herbst. t. 10. Seba, Mus. 4, t. 39. Merian, 31. Boisd. Spec.
      gén. 321. Boisd, et Lec. 38, pl. 15.
machaon Linn.—Calif., Eur., Kamtschatk.—(All European authors.)
garamas Hübn.-Mex.-Hübn. Samml. exot.
acamas Fab.—Jam.—Fab. Syst. Ent. III, 1, 8. Boisd. Sp. gén. I, 360.
oxynius Doubled.—Cuba.—Doubled. augustus Boisd. Spec. gén. I, 358.
aristodemus Esper.-Mex.-Esper, Ausl. Schmett. t. 56, f. 2. temenes
      Godt. Encyc. IX, 63.
philolaus Boisd.—Mex.—Boisd. Spec. gén. I, 251.
agesilaus Boisd.—Mex.—Boisd. Spec. gén. 263.
thymbraeus Boisd.—Mex.—Boisd. Spec. gén. 303.
phaon Boisd.—Mex.—Boisd. Spec. gén. 319.
arister Godt.-Mex.-Godt. Encyc. IX, 60.
pilumnus Boisd.—Mex.—Boisd. Spec. gén. 341.
daunus Boisd.—Mex.—Boisd. Spec. gén. 342.
photenus Doubled.—Mex.—Ann. Nat. Hist. new ser. XIV, 415 (1845).
caiguanabus Poey.—Cuba.—Poey, Hist. Nat. 1, pl. 15.
thersites Fab.—Jam.—Fab. Syst. Ent. III, 30. C. B. M. (Pt. 1, 1852.)
cebatus Doubled.—Mex.—C. B. M. (Pt. 1, 1852.)
homerus Fab.—Mex.?—Fab. Ent. Syst. 111. Donov. Repos. pl. 20.
      Esper, exot. t. 45. Godt. Encyc. IX, Suppl. 811. Boisd. Spec.
      gén. 345.
```

cincinnatus Boisd.—Mex.—Boisd. Spec. gén. 346; asclepius Hübn.

Marchaudii Boisd.—Mex.—Boisd. Spec. gén. 350. montezuma Westw.—Mex.—Westw. Arc. ent. 2, 18, f. 3. mezentius Doubled.—Mex.—Doubled. Ann. Nat. Hist. 1844. pelaeus Fab.—Jam.—Fab. Syst. Ent. III, 1, 5. Boisd. Spec. gén. I, 366. Westw. Arc. ent. t. 18. P. augeas Ménétriés. Bull. Soc. Imp. Mosc. N. S. III, 10.

marcellinus Doubled.—Jam.—C. B. M. 8 (1845.) protesilaus Drur. I, t. 22, f. 1, 2.

epidaus Doubled.-Mex.-Doubled. and Hew. t. 3, f. 1 (1846.)

palnus Fab.—Jam.—Fab. Syst. Ent. III, 5. C. B. M. pt. 1, 1852, 40.

iphidamas Doubled.—Mex.—C. B. M. pt. 1, 1852, 44.

pavores Doubled.—Mex.—C. B. M. pt. 1, 1852, 44.

aeonophas Doubled.—Mex.—C. B. M. pt. 1, 1852, 65.

ulopas Doubled.—Mex.—C. B. M. pt. 1, 1852, 69.

#### Parnassius Latr.

smintheus Doubled.—Rocky Mtns.—Doubled. and Hewit. Gen. diurn. pl. 4, f. 1.

clarius Boisd.—California.—Ann. Soc. ent. 2me Sér. X, 283.

nomion Fisch.—Calif., Siberia.—Fischer Entomograph. de la Russie II, 242, tab. 6. Boisd. Spec. gén. 397.

clodius Ménétr.—Calif.—Ménétriés in Voyage de M. Wosnesenski.

# Euterpe Swains.

charops Boisd.—Mex.—Boisd. Spec. gén. I, 407. nimbice Boisd.—Mex.—Boisd. Spec. gén. I, 409.

# Leptalis Dalm. Licinia Swains.

jethrys Boisd.-Mex.-Boisd. Spec. gén. I, 423.

cydno Doubled.—Mex.—Doubled. Gray's Zool. Mus. 75. Pieris nehemia Boisd. Spec. gén. 528.

antherize Hewits.—Mex.—Hewits. exot. pt. 27.

euryope Hewits.-Mex.-Hewits. exot. pt. 27.

# Pieris Schr. Latr. Pontia Fab. Ochs. Horsf.

monusta Godt.—Ga. to Brazil.—Godt. Encyc. IX, 141. Linn. Syst. Nat. II, 760. Fab. Syst. Ent. III, 1, 189. Cram. 151. F. var. orseis Godt. Encyc. 141. Hübn. Samml. exot. var. cleomes Boisd. et Lec. pl. 16.

casta Kirby.—North. St.—Kirby Faun. Bor. IV, 288. cruciferarum Boisd. Spec. gén. I, 519.

protodice Boisd.—U. S.—Boisd. Spec. gén. I, 543. Boisd. et Lec. pl. 17. oleracea Harr.—North. St.—Har. Ins. Mass. 214. Boisd. Spec. gén. I, 518. sisymbrix Boisd.—California.—Ann. Ent. Soc. 2me Sér. X, 284.

leucodice Boisd.—California.—Ann. Ent. Soc. 2me Sér. X, 284.

Viardi Boisd.—Mex.—Boisd. Spec. gén. I, 439.

lycimnia Godt.—Mex.—Godt. Encyc. IX, 144. Cram. 105.

helvia Godt.-Mex.-Godt. Eneyc. IX, 145.

isandra Boisd.—Mex.—Boisd. Spec. gén. I, 490.

elodia Boisd.-Mex.-Boisd. Spec. gén. I, 529.

josephina Godt.-Mex.-Encyc. IX, 158. Boisd. Spec. gén. I, 532.

autodice Hübn.-California, Chili.-Hübn. Samml. exot. Boisd. Spec. gén. 539.

marana Doubled.-W. Ind.-Ann. Nat. Hist. 1844.

(P. chlorographa, figured in Boisd. et Lec. pl. 17, must be omitted. Boisd. in Spec. gén. I, 432, states that he was misled by Hübn., and that the species is from Java.)

menapia Felder.-Utah.-Feld. in Wiener Entom. Monatschrift III, No. 9, 271.

#### Anthocaris Boisd. Dup. Pieris Latr. Pontia Ochs.

genutia Fab.-N. Am.-Fab. E. S. III, 1, 193. Godt. Encyc. IX, 168. Hübn. Samml. exot. Fem. Lherminieri Godt. Encyc. IX, 164. creusa Doubled .- Rocky Mts .- Doubled . and Hew. pl. 7, f. 1. lanceolata Boisd.—California.—Ann. Soc. ent. 2me Sér. X, 284.

sara Boisd.—California.—Ann. Soc. ent. 2me Sér. X, 285.

ausonia Hübn.—California—Hübn. Europ. Schmett. fig. 582.

#### Nathalis Boisd.

jole Boisd.-Mex., Texas.-Boisd. Spec. gén. I, 589.

Rhodocera Boisd. Dup. Goniopteryx Leach. Colias Latr.

maerula Fab.—Flor., Jam.—Fab. E. S. III, 1, 212. Godt. Encyc. IX, 89. Boisd. Spec. gén. I, 600. Boisd. et Lec. pl. 23. eclipsis Cram. 129, A. B. Hbst. t. 103.

lyside Godt.—South. St.—Godt. Encyc. IX, 98. Boisd. Spec. gén. I, 603. lorquini Boisd.—California.—Ann. Soc. ent. tom. III, 3me Sér. XXXII. rhamni Boisd.—California and Eur.—Ann. Soc. ent. X, 2me Sér. 286. eurytheme Boisd.—Mex.—Ann. Soc. ent. X, 2me Sér. 286. Lacordairei Boisd.—Mex.—Boisd. Spec. gén. I, 600.

gueneeana Boisd.-Mex.-Boisd. Spec. gén. I, 601.

#### Callidryas Boisd.

eubule Linn.-South. St.-Linn. Syst. Nat. II, 764. Cram. 120. marcellina Cram. 163. Boisd. et Lec. pl. 24. Boisd. Spec. gén. I, 613. eubule et marcellina Godt. IX, 92. Fab. E. S. I, 477. Hbst. pl. 110.

marcellina Fab.—South. St. (an mas Eubule?)—Fab. E. S. III, 1, 209. eubule Sm. Abb. I, pl. 5. Boisd. Spec. gén. I, 615. Boisd. et Lec. pl. 24.

drya Fab.-W. Ind.-Fab. E. S. III, 1, 659. Godt. Encyc. 92. Boisd. Spec. gén. I, 616. Ménétriés Nov. Mem. Soc. Moscow, t. III, 118.

thalestris Boisd.—Cuba.—Boisd. Spec. gén. I, 621.

evadne Godt.-Cuba.-Godt. Encyc. IX, 98. Boisd. Spec. gén. I, 628. alcmeone Cram. 141 E. statira Swains. Zool. Ill. pl. 5.

neleis Boisd.—Cuba.—Boisd. Spec. gén. I, 129.

orbis Boisd.—Cuba.—Boisd. Spec. gén. I, 830.

philea Godt.—St. Dom.—Godt. Encyc. IX, 91. Linn. Syst. N. II, 764. Fab. E. S. III, 1, 212. Cram. 173. Female lolia Encyc. IX, 94. aricia Encyc. IX, 91. melanippe Cram. 34. Boisd. Sp. gén. 619.

#### Colias Fab. Godt. Latr. Ochs.

- caesonia Godt.—South. St.—Godt. Encyc. IX, 98. Stoll, Suppl. Cram. pl. 41. Boisd. Spec. gén. I, 635. Boisd. et Lec. pl. 20. philippa? Fab. E. S. III, 1, 211.
- Wosnesenski Ménétries.—Calif.—Mén. Voyage de M. Wosnesenski. Catal. of the Petersburg Imper. Acad. Sciences, 77.
- hyale Linn.—Calif., Siberia.—Boisd. Spec. gén. 650. palaeno Fisch. Entom. de la Russie, pl. 11.
- edusa Fab.—N. Am., Eur.—Godt. Encyc. IX, 103. Boisd. Spec. gén. I, 638. Boisd. et Lec. 59.
- chrysotheme Godt.—South. St.—Godt. Eneyc. IX, 103. Hübn. Pap. 426—8. Boisd. Spec. gén. I, 643, pl. 2, B. f. 5. Boisd. et Lec. 62.
- philodice Godt.—N. Am.—Godt. Encyc. IX, 100. Boisd. Spec. gén. I, 647. Boisd. et Lec. pl. 21. anthyale Hübn. Zutr. 307. Swains Zool. Illustr. 1st Ser. pl. 60.
- amphidusa Boisd.—California.—Ann. Soc. ent. 2me Ser. X, 286.
- eurydice Boisd.—California.—Ann. Soc. ent. tom. III, 3me Ser. XXXII.
- Boothii Curt.—Arc. Am.—Ross's Second Voyage.
- phicomene Godt.—Hudson's Bay.—Godt. Encyc. IX, 100. Boisd. Spec. gén. I, 649.
- pelidne Boisd.—Labrador.—Boisd. Spec. gén. I, 644. Boisd. et Lec. 66, pl. 21.
- nastes Boisd.—Labrador.—Boisd. Spec. gén. I, 648.

# Terias Swains. Xanthidia Boisd. Olim. Pieris et Colias Latr. Godt.

- nicippe Godt.—South. St.—Godt. Encyc. IX, 103. Cram. 210. Fab. E. S. III, 1, 208. Boisd. Spec. gén. I, 653. Boisd. et Lec. pl. 20. Say's Amer. Ent. II, pl. 30.
- lisa Boisd.—N. Am.—Boisd. Spec. gén. I, 661, pl. 2, A. f. 5. Boisd. et Lec. pl. 19.
- delia Cram.—South. St.—Cram. 273, A. Boisd. Spec. gén. I. 663. Boisd. et Lec. pl. 18. daira Godt. Encyc. IX, 137.
- jucunda Boisd.—N. Am.—Boisd. Spec. gén. I, 665. Boisd. et Lec. pl. 19. hyona Boisd.—St. Dom.—Boisd. Sp. gén. 667. Ménétriés Nouv. Mem. Soc. Mosc. III, t. 11.
- dina Boisd .- Cuba .- Boisd . Sp. gén. 666.
- Westwoodii Boisd.—Mex.—Boisd. Spec. gén. I, 666.
- since Boisd.—Mex.—Boisd. Spec. gén. I, 683.
- thymetus Boisd.—Mex.—Boisd. Spec. gén. 1, 662.
- midea Boisd.—Cuba.—Boisd. Spec. gén. I, 659.
- elathea Boisd.—Jam.—Boisd. Spec. gén. I, 664.
- stigmula Boisd.—Cnba.—Boisd. Spec. gén. I, 661. proterpia Boisd.—Jam.—Boisd. Spec. gén. I, 654.
- venusta Boisd.—Jam.—Boisd. Spec. gén. I, 658.
- mexicana Boisd.—Mex.—Boisd. Spec. gén. pl. 19, 679.
- agarithe Boisd.—Mex.—Boisd. Spec. gén. 623.

# Fam. DANAIDAE.

#### Danais Boisd.

berenice Cram.—South.—Cram. t. 205. Boisd. et Lec. pl. 39. D. erippus Godt. Eneye. IX, 186. gilippus Sm. Abb. I, pl. 7.

archippus Fab.—U. S., Mex., Braz.—Fab. Ent. Syst. III, 1, 49. Sm. Abb. I, pl. 6. Catesby II, pl. 88. Boisd. et Lec. 137, pl. 40. plex-ippus Cram. III, 24, pl. 206. Say Am. Ent. pl. 54. erippus Cram. pl. 3.

cleothera Godt.—Jam.—Godt. Eneyc. IX, 185. Doubled. and Hew. t. 12. cleophile Godt.—Jam.—Godt. Eneyc. IX, 185. Doubled. and Hew. t. 12.

# Fam. NYMPHALIDAE.

# Heliconia Fab.

charitonia Linn.—South. States.—Linn. Syst. Nat. II, 757. Godt. Encyc. IX, 210. Boisd. et Lec. 140, pl. 41. diaphona Drur.—Jam.—Drur. (Westw.) II, pl. 7. zuleika Hewits.—Nicaragua.—Hewits. Exot. I, pl. 8. diaphanus Hewits.—Jam.—Hewit. Exot. I. tolosa Hewit.—Mex.—Hewit. Exot. I. derasa Hewit.—Nicaragua.—Hewit. Exot. I. virginia Hewit.—Mex.—Hewit. Exot. I. morgane Hewit.—Mex.—Hewit. Exot. I.

#### Ithomia Doubled.

patilla Hewits.—Mex.—Hewits. Exot. I. leila Hewits.—Mex.—Hewits. Exot. I. nero Hewits.—Mex.—Hewits. Exot. I. zea Hewits.—Mex.—Hewits. Exot. I.

#### Eresia Doubled.

phyllira Hewits.—Mex.—Hewits. I, pl. 30.

#### Siderone Doubled.

syntyche Hewits.-Mex.-Hewits. Exot. pl. 55.

# Paphia Doubled.

electra Hewits.-Mex.-Hewits. Exot. pl. 46.

# Synchloe Boisd.

lacinia Geyer.—Mex.—Geyer in Hübn. Zuträg. f. 899. janais Drur.—Mex.—Drur. III, t. 17, f. 5. Godt. Encyc. IX, 392. hippodrome Geyer.—Mex.—Geyer f. 863. marina Geyer.—Mex.—Geyer f. 877.

# Agraulis Boisd.

- vanillae Linn.—South. States.—Linn. Syst. Nat. II, 787. Cram. t. 212.
  Boisd. et Lec. pl. 42. passiflorae Fab. Syst. Ent. III, 1. Sm. Abb.
  I. pl. 12.
- delila Fab.—Jam.—Fab. Syst. Ent. III, 1, 57. Godt. Encyc. IX, 244. cillene Cram. t. 215.
- julia Fab.—Jam.—Fab. Syst. Ent. III, 1, 180. Godt. Encyc. IX, 244.
  Hübn. Samml. exot. alcionea Cram. t. 215.
- moneta Boisd.—Mex.—Boisd. Spec. gén. I, t. 210.

#### Argynnis Fab.

- idalia Fab.—U. S.—Fab. Ent. emend. III, 145. Drur. 4, t. 13. Cram. 4, t. 44. Herbst, IX, 166, t. 252—3. Boisd. et Lec. pl. 43.
- diana Cram.—South. St.—Cram. II, 4, pl. 98. Fab. Syst. emend. III, 145. Herbst. IX, 169, pl. 253. Godt. Encyc. IX, pl. 35. Say's Amer. Ent. I, pl. 17. Boisd. et Lec. 149.
- cybele Godt.—U. S.—Godt. Encyc. IX, 263. Kirb. Faun. Bor. IV, 289. Boisd. et Lec. pl. 45. daphnis Cram. 5, pl. 57. Herbst, IX, 176, pl. 225.
- columbina Boisd, et Lec.—U. S.—Boisd, et Lec. pl. 44. hegesia Cr. pl. 209. claudia Cr. t. 69, f. E. F.
- myrina Cram.—U. S.—Cram. 16, pl. 189, B. C. Kirb. Faun. Bor. IV, 290.
  Say's Amer. Ent. V, 3, pl. 46. myrissa Godt. Encyc. IX, 268. Boisd.
  et Lec. 155, pl. 45. Fab. Syst. emen. III, 145. Herbst, IX, 178, pl. 255.
- bellona Godt.—U. S.—Godt. Encyc. IX, 271, 33. Fab. Syst. Ent. III, 1, 254. Boisd. et Lec. pl. 45.
- aphrodite Godt.—North. States.—Godt. Encyc. IX, 264. Fab. Syst. Ent. III, 1, 144. Kirb. Faun. Bor. IV, 290.
- astarte Doubled.—N. Amer.—Doubled. and Hew. t. 23, f. 5. (Supposed by them at first to be a Melitaea.)
- ashtaroth Fisher.—New Jersey.—Fisher. Proceed. A. N. Soc. Phila. 1859.
- calippe Boisd.—California.—Boisd. Ann. Ent. Soc. X, 2me Sér. 302.
- zerene Boisd.-California.-Boisd. Ann. Ent. Soc. X, 2me Sér. 302.
- aglaja Linn.—Calif., Europe.—(All European authors.)
- egleis Boisd.—Calif.—Boisduval —?
- adiaste Boisd.—Calif.—Boisduval —?
- ossianus Boisd, et Lec.—Labrador.—Boisd, et Lec. 157. trichlaris Hübn. exot. aphirope Hübn. Eur. Schm. f. 734, 5.
- polaris Boisd. et Lec.—Labrador.—Boisd. et Lec. 159.
- chariclea Godt.—Labrador.—Godt. Encyc. IX, 273. Boisd. et Lec. 161.
- freya Godt.—Arc. Amer.—Godt. Encyc. IX, 273. Kirb. Faun. Bor. 391.
- pantherata Martyn.—Hayti.—Martyn, Psyche t. 14. briarea Godt. Encyc. IX. 261.
- euryale Doubled .- Mex .- Doubled and Hew. t. 23.
- briarea Godt.—St. Dom.—Godt. Encyc. IX, 261, 16.

#### Melitaea Fab.

phaeton Cram.—Mid. States.—Cram. Ins. 17, t. 193. Fab. Syst. Ent. 481.
Hbst. VI, 111, t. 142, f. 3, 4. Drur. I, pl. 21, f. 3, 4. Boisd. et Lec. pl. 47.

ismeria Boisd. et Lec.—South.—Boisd. et Lec. pl. 46.

tharos Cram.—U. S.—tharossa Godt. Eneye. 1X, 289. Drur. I, pl. 21. Hbst. IX, pl. 203, f. 4, 5. Boisd. et Lec. 170, pl. 47, f. 3.

nycteis Doubled.—Mid. States.—Doubled. and Hew. pl. 23. anicia Doubled.—Rocky Mtns.—Doubled. and Hew. pl. 23.

anicia Doubled.—Rocky Mths.—Doubled, and new. pr. 25.

proclea Doubled.—Rocky Mtns.—Doubled. and Hew. pl. 23.

chalcedon Doubled.—California.—Doubled. and Hew. pl. 23. editha Boisd.—California.—Boisd. Ann. Ent. Soc. X, 2me Ser. 305.

palla Boisd.—California.—Boisd. Ann. Ent. Soc. X, 2me Ser. 305.

pelops Drur.—Jam.—Drur. I, pl. 19.

# Grapta Doubled. Vanessa Fab.

interregationis Godt.—U. S.—Godt. Eneye. IX, 301. F. Syst. Ent. III, 1, 78. Boisd. et Lec. pl. 51. Harr. Ins. Mass. 219. C-aureum Cram. t. 19. Sm. Abb. I, pl. 11.

comma Harris.—North. St.—Harris Ins. Mass. 221.

#### Vanessa F.

J-album Boisd. et Lec.—North. States.—Boisd. et Lec. pl. 50.

Milberti Eneye.—North. St.—Eneye. IX, 307. Doubled. and Hew. 26. Boisd. et. Lec. pl. 50. furcillata Say's Amer. Ent. II, 27.

progne Cram.—North. St.—Cram. t. 85. Boisd. et Lec. pl. 50. Harr. Ins. Mass. 221. C-argenteum Kirby Faun. Bor. pl. 3.

antiopa Linn.—Hudson's Bay to Mex., Eur., Asia.—Linn. Syst. II, 776.
Eneye. IX, 308. Kirby Faun. Bor. IV, 294. Boisd. et Lec. 173.
Harr. Ins. Mass. 218.

californica Boisd.—California.—Boisd. Ann. Ent. Soc. X, 2me Sér. 306. Lintneri Fitch.—N. York.—Fitch's Fifth Report.

# Pyrameis Hübner.

atalanta Linn.—U. S.—Linn. Syst. Nat. II, 779. Eneye. IX, 319. Hübn. Pap. t. 15. Boisd. et Lec. 175.

cardui Linn.—(Four quarters of the globe.)—Linn. Syst. Nat. II, 776. Encyc. IX, 323. Boisd. et Lec. 178. carduelis Cram. t. 26.

huntera Sm.—South. St.—Sm. Abb. I, pl. 9. Boisd. et Lec. pl. 48. virginiensis Drury I, pl. 5. iole Cram. Schmett. t. 12.

carye Hübn.—Calif., Braz.—Hübn. Samml. exot.

#### Iunonia Hübner.

coenia Boisd. et Lec.—South. St.—Boisd. et Lec. pl. 49. orythia Sm. Abb. I, pl. 8. iunonia Hübn.

- Iethe Fab.—Mex.—Fab. Syst. Ent. III, 1, 80. Godt. Encyc. IX, 818.
- steneles Linn.—Jam.—Linn. Syst. Nat. II, 750. Clerck, Icon. t. 35. Fab. Syst. Ent. III, 1, 85. Godt. Encyc. IX, 378.
- epaphus Godt.—Mex.—Godt. Encyc. IX, 299. Latr. in Humb. et Bonpl. t. 35.
- chiron Fab.—Mex.—Fab. Syst. Ent. III, 1, 26. Godt. Eneyc. IX, 359. marius Cram. t. 200.

# Anartia Hübner.

- iatrophae Hübn.—W. Ind.—Hübn. Verzeich. bek. Schmett. (1816.) Linn. Syst. Nat. II, 779, n. 172. Fab. Syst. Ent. III, 1, 98. Cram. t. 209, var. Godt. Encyc. IX, 297.
- Iytraea Godt.—Jam.—Godt. Encyc. IX, 299. chrysopelia Hübn. Zutr. f. 547.
- amathea Doubled.—Mex.—Doubled. and Hew. t. 24, var. Godt. Encyc. IX, 298.

# Nymphalis Latr. Limenitis Fab.

- ursula Fab.—Mid. and South. St.—Fab. Syst. Ent. III, 1, 82. Sm. Abb. I, pl. 10. ephestion Godt. Eneye. IX, 42. astyanax Fab. Mant. II, 4, 29.
- arthemis Drur.—North. St.—Drur. II, pl. 10. Say's Amer. Ent. II, pl. 23. Boisd, et Lec. pl. 54.
- disippus Godt.—U. S.—Godt. Encyc. IX, 392. Boisd. et Lec. pl. 55.

  misippus Fab. Syst. Ent. 481. archippus Cram. pl. 16.

Lorquini Boisd.—California.—Boisd. Ann. Ent. Soc. X, 2me Ser. 301.

glycerium Doubled.—Far West.—Doubleday and Hewits. pl. 50.

cadmus Cram.—South. St.—Cram. Pap. t. 22.

acherontia Fab.—New York? to Braz.—Fab. Syst. Ent. III, 1, 76.

pherecides Cram.—South. St.—Cram. Pap. t. 330.

eulalia Doubled.—Mex.—Doubled. and Hew. pl. 36. cadmus Cram.

#### Eresia Boisd.

ezorias Hewits.-Mex.-Hewits. exot. pt. 24.

### Morpheis Hübner.

Ehrenbergii Doubled.—Mex.—Doubled. Gen. diurn. pl. 43, f. 1.

# Apatura Fab.

clyton Boisd. et Lec.—South. St.—Boisd. et Lec. 209, pl. 56. celtis Boisd. et Lec.—South. St.—Boisd. et Lec. 210, pl. 57.

#### Aganisthos Boisd.

orion Boisd. et Lec.—South. St.—Boisd. et Lec. 195, pl. 52. odius Fab. Syst. Ent. 457. danae Cram. pl. 84, A. B.

# Fam. SATYRIDAE.

## Chionobas Boisd.

balder Boisd. et Lec.—Labrador.—Boisd. et Lec. 216. bootes Boisd. et Lec.—Labr.—Boisd. et Lec. 218. oeno Boisd. et Lec.—Labr.—Boisd. et Lec. 220. taygeta var. Hüb. also Boisd. et Lec.—New Hampshire.—Boisd. et Lec. 222.

# Neonympha Hübner.

eurythris Fab.—U. S.—F. Ent. Syst. III, 1, 137. Godt. Encyc. IX, 494. Boisd. et Lec. pl. 61. cymela Cr. t. 132.

sosybius Fab.—South. St.—F. Ent. Syst. III, 219. Godt. Encyc. IX, 495. Boisd. et Lec. pl. 63. camerta Cr. t. 293.

areolatus Godt.—U. S.—Godt. Encyc. IX, 494. Sm. Abb. I, pl. 13. Boisd. et Lec. pl. 63.

gemma Hübn.—U. S.—Hübn. Samml. exot. pl. 2, f. 7, 8. Boisd. et Lec. pl. 62.

canthus Linn.—North. St.—Linn. Syst. Nat. 768, 129. Godt. Encyc. IX, 493. Boisd. et Lec. pl. 60. eurydice Linn. Amoen. Acad. 6, 406. acmenis Hübn.—Baltimore.—Hübn. Zutr. f. 233, 4.

polixenes Fab.—U. S.—Fab. Ent. Syst. emend. III, 152.

cantheus Fab.—U. S.—Fab. Syst. Ent. 486. Spec. tom. II, 31. Godt. Encyc. Méth. IX, 493.

# Ypthima Hübner.

philomela Hübn.-U. S.-Hübner. fig. 83.

#### Erebia Dalman.

discoidalis Kirby.—North. St.—Kirby Faun. Bor. IV, 298. nephele Kirby.—North. St.—Kirby Faun. Bor. IV, 299. Rossii Curtis.—North. St.—Curtis, Ross's Arc. Voy. maucinus Doubled.—North. St.—Doubled. and Hew. pl. 64. vesagus Doubled.—Rocky Mtns.—Doubled. and Hew. pl. 64.

# Satyrus Fab.

alope Fab.—U. S.—Fab. E. S. III, 229. Encyc. 1X, 524. Boisd. et Lec. pl. 59, 228.

ariana Boisd.—Cal.—Boisd. Ann. Soc. Ent. X, 2me Sér. 308.

sthenele Boisd.—Cal.—Ann. Soc. ent. X, 2me Sér. 308.

pegala Fab.-N. Am.-Fab. Syst. Ent. 494, III, pt. 1, 230, an var. alope?

#### Debis Doubled.

portlandia Fab.—North. St.—Fab. Syst. Ent. III, 1, 103. Boisd. et Lec. pl. 58, 226. andromacha Hübn. Say's Amer. Ent. II, pl. 36.

# Coenonympha Hübn.

californica Doubled.—California.—Doubled. Gen. pl. 66. galactina Boisd.—Cal.—Boisd. Ann. Soc. ent. 2me Sér. 309. semidea Say.—U. S.—Say's Amer. Ent. III, pl. 50.

#### Calisto Hübner.

zangis Fab.—Carolina.—Fab. Syst. Ent. 486, III, pt. 1, 218. Herbst, Pap. t. 203. Godt. Encyc. IX, 525. Doubled. and Hew. pl. 66, f. 5. hyssius Godt.—N. Am.?—Godt. Encyc. IX, 525, n. 131.

#### Fam. LIBYTHEIDAE.

# Libythea Fab.

motya Boisd. et Lec.—U. S.—Boisd. et Lec. pl. 64. Bachmani Kirtland.—Ohio.—Kirt. Silliman's Journ. XIII, new ser. 336.

# Fam. LYCAENIDAE.

# Thecla F. Polyommatus Latr. Lycaena Ochs.

halesus Fab.—South. St.—Fab. Syst. emend. III, 273. Fab. Mant. II,
 67. Cram. Ins. 9, t. 98. Hbst. X, 322, t. 295. Boisd. et Lec. 83,
 pl. 25. dolichos Hübn. Zutr. f. 219.

M-album Boisd. et Lec.—Georgia.—Boisd. et Lec. 86, pl. 26.

psyche Boisd. et Lec.—Georgia.—Boisd. et Lec. 88, pl. 27. (An var. Malbum? Boisd.)

hyperici Boisd. et Lec.—Ga., Flor.—Boisd. et Lec. 90, pl. 28. (An var. favonius?)

falacer Godt.—U. S.—Godt. Eneye. IX, 633. Boisd. et Lec. 92, pl. 29. calanus Hübn. Exot.

favonius Godt.—U. S.—Godt. Encyc. IX, 635. Boisd. et Lec. 95, pl. 30. Sm. Abb. I, pl. 14. melinus? Hübn. f. 121, 22.

liparops Boisd. et Lec.—Ga.—Boisd. et Lec. 99, pl. 31. favonius? Sm. Abb.

irus Godt.-Ga.-Godt. Encyc. IX, 674. Boisd. et Lec. 101, pl. 31.

arsace Boisd. et Lec.—South. St.—Boisd. et Lec. 103, pl. 32.

niphon Boisd. et Lec.—Ga., Flor.—Boisd. et Lec. 103, pl. 33.

smilacis Boisd. et Lec.—Ga.—Boisd. et Lec. pl. 33. damon Cram. t. 390.

mopsus Boisd. et Lec.—Car., Ga.—Boisd. et Lec. 109, pl. 34.

poeas Hübn.—South. St.—Boisd. et Lec. 111, pl. 35. beon Godt.

acis Drur.—South. St.—Drur. I, pl. 1. ixion Fab.

iroides Boisd.—California.—Boisd. Ann. Soc. ent. X, 2me Sér. 289.

eryphon Boisd.—California.—Boisd. Ann. Soc. ent. X, 2me Sér. 289.

dumetorum Boisd.—California.—Boisd. Ann. Soc. ent. X, 2me Sér. 291.

augustus Kirb.—North. St.—Kirb. Faun. Bor. IV, 298. grunus Boisd.—California.—Ann. Soc. ent. 2me Sér. X, 289. sylvinus Boisd.—California.—Ann. Soc. ent. 2me Sér. X, 287. auretorum Boisd.—California.—Ann. Soc. ent. 2me Sér. X, 287. saepium Boisd.—California.—Ann. Soc. ent. 2me Sér. X, 287. damastus. Godt.—Va.—Eneyc. IX, 640. damon Cram. 390. nipha Hübn. f, 203, 4. N. Amer. balliston Hübn. f. 229. N. Amer. acmenis Hübn. f. 223. N. Amer. lygdamus Doubled.—Hudson's Bay.—Doubled. Entomol. 209. pan Drur.—Jam.—Drur. (Westw.) II, pl. 23.

#### Argus Geoffr.

filenus Poey.—U. S.—Poey, Cent. Boisd. et Lec. 114, pl. 35. ubaldus Godt. Encyc. IX, 689. pseudoptiletes Boisd. Boisd. et Lec. pl. 35. pseudargiolus Boisd.—U. S.—Boisd. et Lec. 118, pl. 36.

Polyommatus Latr. Lycaena Fab. Argus Geoffr. comyntas Godt.—U. S.—Encyc. IX, 660. Boisd. et Lec. 120, pl. 36. phleas Godt.—U. S., Africa.—Godt. Encyc. IX, 670. Linn. Syst. Nat. II,

793. Hübn. Pap. t. 72, f. 362.

4, pl. 2, f. 2.

thoe Boisd. et Lec.—Mid. States.—Boisd. et Lec. 125, pl. 38. epixanthe Boisd. et Lec.—West. St.—Boisd. et Lec. 127, pl. 38. crataegi Boisd. et Lec.—Ga.—Boisd. et Lec. 128, pl. 37. tarquinius Fab. Syst. Ent. III, 1, 319. Godt. Encyc. 580. hypophleas Boisd.—California.—Boisd. Ann. Soc. ent. 2me Sér. X, 293. helloides Boisd.—California.—Boisd. Ann. Soc. ent. 2me Sér. X, 292. gorgon Boisd.—California.—Boisd. Ann. Soc. ent. 2me Sér. X, 292. xanthoides Boisd.—California.—Boisd. Ann. Soc. ent. 2me Sér. X, 292. arota Boisd.—California.—Boisd. Ann. Soc. ent. 2me Sér. X, 293. amyntula Boisd.—California.—Boisd. Ann. Soc. ent. 2me Sér. X, 294. exilis Boisd.—California.—Boisd. Ann. Soc. ent. 2me Sér. X, 295. actaegon Boisd.—California.—Boisd. Ann. Soc. ent. 2me Sér. X, 295. xerces Boisd.—California.—Boisd. Ann. Soc. ent. 2me Sér. X, 296. saepiolus Boisd.—California.—Boisd. Ann. Soc. ent. 2me Sér. X, 297. icarioides Boisd.—California.—Boisd. Ann. Soc. ent. 2me Sér. X, 297. pheres Boisd.—California.—Boisd. Ann. Soc. ent. 2me Sér. X, 297. heteronea Boisd.—California.—Boisd. Ann. Soc. ent. 2me Sér. X, 298. enoptes Boisd.—California.—Boisd. Ann. Soc. ent. 2me Sér. X, 298. piasus Boisd.—California.—Boisd. Ann. Soc. ent. 2me Sér. X, 299. antiacis Boisd.—California.—Boisd. Ann. Soc. ent. 2me Sér. X, 300. acmon Doubled.—U. S.—Doubled. and Hew. pl. 76. antibubastus Hübn.—U. S.—Hübn. 19, f. 99. dorcas Kirb.—North. St.—Kirb. Faun. Bor. IV, 299. lucia Kirb.—North. St.—Kirb. Faun. Bor. IV, 299. lysippus Linn.—Jam.—Linn. Syst. Nat. II, 793. Cram. pl. 380. Fab.

Ent. Syst. III, 1, 321. Godt. Encyc. IX, 566. Drury (Westw.) I,

# Fam. ERYCINIDAE.

#### Lemonias III.

mormo Felder.—Utah.—Feld. Wiener Ent. Monatschrift III, No. 9, 271.

# Nymphidia Fab.

pumila Boisd. et Lec.—Ga., Flor.—Boisd. et Lec. 131, pl. 37. cernes Linn. Syst. Nat. XX, 11, 706.

# Fam. HESPERIDAE.

#### Goniloba Doubled. and Hew.

tityrus Sm.—N. Am.—Sm. Abb. I, pl. 19. Boisd. et Lec. pl. 72. Harr. Ins. Mass. 223.

yuccae Boisd. et Lec.—Flor.—Boisd. et Lec. pl. 70.

olynthus Boisd. et Lec. - U. S. - Boisd. et Lec. pl. 75.

antoninus Latr.—Calif., Braz.—Encyc. Meth. IX, 746.

#### Nisoniades Hübn.

juvenalis Sm.—U. S.—Sm. Abb. I, pl. 20. Boisd. et Lec. pl. 65.

catullus Sm.-U. S.-Sm. Abb.

Herminieri Godt.—Carolina.—Godt. Encyc. IX, 777.

brizo Boisd. et Lec.—U. S.—Boisd. et Lec. pl. 66.

## Cyclopides Hübn.

coras Cram.—U. S.—Cram. pl. 31. Eneye. IX, 776. aesculapius F. Syst. Ent. III, 1, 347. otho? Sm. Abb. I, pl. 16. Boisd. et Lec. pl. 77.

# Pamphila Fab.

vitellius Sm.-Ga.-Sm. Abb. I, pl. 17.

thaumas Fab.—U. S.—Fab. Syst. Ent. III, pl. 327.

zabulon Boisd. et Lec.—U. S.—Boisd. et Lec. pl. 76.

origenes Fab.—U. S.—Fab. Syst. Ent. III, pl. 329. cernes Boisd. et Lec. accius? Sm. Abb. I, pl. 23.

arpa Boisd. et Lec.—U. S.—Boisd. et Lec. pl. 68.

bulenta Boisd. et Lec.—U. S.—Boisd. et Lec. pl. 67.

brettus Boisd. et Lec. - U. S. - Boisd. et Lec. pl. 75.

pustula Hübn.-U. S.-Hübn. Zuträg. f. 625.

Drurii Eneye.—U. S.—Eneye. IX, 767.

numitor Fab.—U. S.—Fab. Syst. Ent. III, 324. puer Hübn. Zutr. f. 275. aragos Boisd. et Lec.—California.—Boisd. et Lec. pl. 78. tristis Boisd.

Ann. Soc. ent. 2me Sér. X.

phyleus Boisd. et Lec.—U. S.—Boisd. et Lec. pl. 78.

Peckii Kirb.—U. S.—Kirb. Faun. Bor. IV, 300.

leseur Godt.—U. S.—Encyc. IX, 748. textor Hübn.—U. S.—Hübn. Zutr. pl. 515. sanguinea Hübn.—U. S.—Hübn. Zutr. pl. 613. syrichthus Fab.—U. S.—Fab. Mant. II, 90. oileus Linn.—U. S.—Linn. Syst. Nat. I, pl. 2, 795. orcus Cram.—U. S.—Cram. Pap. pl. 334.

# Hesperia Latr.

cellus Boisd. et Lec.—U. S.—Boisd. et Lec. pl. 73. lycidas Encyc.—U. S.—Encyc. 1X, 751. Sm. Abb. I, pl. 20. Boisd. et Lec. pl. 71.

proteus Fab.—U. S.—F. Syst. Ent. III, 331. Eneyc. IX, 730. bathyllus Sm.—U. S.—Sm. Abb. I, pl. 22. Boisd. et Lec. pl. 74. comma Boisd.—Calif.—Ann. Soc. ent. III, 2me Sér. X, 313. sylvanus Boisd.—Calif.—Ann. Soc. ent. III, 2me Sér. X, 313. sylvanoides Boisd.—Calif.—Ann. Soc. ent. III, 2me Sér. X, 313. nemorum Boisd.—Calif.—Ann. Soc. ent. III, 2me Sér. X, 314. agricola Boisd.—Calif.—Ann. Soc. ent. III, 2me Sér. X, 314. pratinicola Boisd.—Calif.—Ann. Soc. ent. III, 2me Sér. X, 315. ruricola Boisd.—Calif.—Ann. Soc. ent. III, 2me Sér. X, 315. campestris Boisd.—Calif.—Ann. Soc. ent. III, 2me Sér. X, 316. sabuleti Boisd.—Calif.—Ann. Soc. ent. III, 2me Sér. X, 316. vestris Boisd.—Calif.—Ann. Soc. ent. III, 2me Sér. X, 317.

# Syrichthus Boisd.

ruralis Boisd.—California.—Ann. Soc. ent. 2me Sér. X, 311. caespitalis Boisd.—California.—Ann. Soc. ent. 2me Sér. X, 312. scriptura Boisd.—California.—Ann. Soc. ent. 2me Sér. X, 313. ericetorum Boisd.—California.—Ann. Soc. ent. 2me Sér. X, 313.

## Castnia Fab.

hesperiaris Walk.-Mex.-Cat. Br. Mus. 1583.

# Fam. EPIALIDAE.

## Epialus Fab.

argenteo-maculatus Harr.—U. S.—Harr. Ins. Mass. 295. Agassiz Lake Sup. 389. C. B. M. Heter. 1556.

# Fam. COSSIDAE.

# Cossus Fab.

robiniae Peck.—U. S.—Peck Mass. Agricult. Rep. V, 67. Harr. Ins. Mass. 296. C. B. M. Heteroc. 1514. Fitch, Fifth Report, No. 293. plagiatus Doubled.—U. S.—C. B. M. Heteroc. 1515. querciperda Fitch.—N. Y.—Fitch, Fifth Report, No. 294. populi Doubled.—Hudson's Bay.—C. B. M. Heter. 1115. Macmurtrei Guér.—U. S.—Icon. du Règne Animal.

#### Zeuzera Latr.

pyrinus Godt.—N. Am.—Godt. Eneyc. VIII, 76. Fab. E. S. 590.
canadensis Herr. Schaef.—Canada.—Herr. Schaef. Lep. exot. Ser. I, 168.
Redtenbachii Hammersch.—Mex.—Hammersch. Naturw. Abhandl. II, 151, pl. 14. C. B. M. Heteroc. 1530.

#### Fam. CONCHILOPODIDAE.

#### Limacodes Latr.

cippus Sm.—U. S.—Sm. Abb. 145, pl. 13. Nat. Lib. XXXVII, 177, pl. 21. querceti Herr. Schaef.—U. S.—Herr. Schaef. Lep. exot. I, f. 174. quercicola Herr. Schaef.—U. S.—Herr. Schaef. Lep. exot. I, f. 175. pithecium Sm.—U. S.—Sm. Abb. 174, pl. 74. Nat. Lib. V, 37, 183, pl. 21. spinuloides Herr. Schaef.—U. S.—Herr. Schaef. I, f. 187. C. B. M. Heteroc. 1147.

fasciola Doubled.—N. Am.—C. B. M. Heteroc. 1147. tentula Doubled.—N. Am.—C. B. M. Heteroc. 1148. palida Doubled.—N. Am.—C. B. M. Heteroc. 1148. flavula Doubled.—Nov. Scot.—C. B. M. Heteroc. 1149.

# Fam. PSYCHIDAE.

#### Perophora Harr.

Melsheimeri Harr.-U. S.-Harr. Ins. Mass. 2d ed. 319.

#### Fam. ZYGAENIDAE.

# Alypia Kirby. Agarista Latr.

octomaculata Sm.—N. Am.—Sm. Abb. I, 87, pl. 44. Harr. Sphing. 34. octomaculalis Hübn. Zutr. 22, f. 119. quadriguttalis Hübn. Ver. 351. guttata Boisd.—California.—Ann. Soc. ent. X, 2me Sér. 320. MacCullochii Kirb.—Canada.—Kirb. Faun. Bor. IV, 301.

#### Procris Fab. Ino Leach.

americana Harr.-U. S.-Harr. Sphing. Silliman's Journ. XXXVI.

16 SESIADAE.

# Glaucopis Fab.

ipomaeae Harr.—Ga.—Harr. Sphing. Silliman's Journ. XXXVI, 316.
C. B. M. Heteroc. 1777.

omphale Hübn.—Flor.—Say's Amer. Ent. II, pl. 19. Harr. Sphing. 317. pholus Drur.—U. S.—Drur. II, pl. 28. Harr. Sphing. 318.

semidiaphana Harr.—South. St.—Harr. Sphing. 318. fulvicollis Hübnr. exot. I.

epimenis Drur.-U. S.-Drur. III, 39. Harr. Sphing.

ferox Doubled.-U. S.-C. B. M. Heteroc. 223.

americana Doubled.—Ga.—C. B. M. Heteroc. 286.

Pertyi Herr. Sch.—Ga.—Herr. Schaef. Lep. exot. I, f. 249. C. B. M. Heteroc. 1609.

dimidiata Herr. Schaef.—Ga. -Herr. Schaef. Lep. exot. I, f. 222.

latipennis Boisd.—California.—Ann. Soc. ent. X, 2me Sér. 320.

chalciope Hübn.—Havana.—Hübn. Samml. exot. XXIII, 235, f. 469.

impar Doubled.—Mex.—C. B. M. Heteroc. 169.

tyrrhene Hübn. — Jam. — Hübn. Samml. exot. XXIII, 242. C. B. M. Heteroc. 169.

venosa Doubled .- Mex .- C. B. M. Heteroc. 284.

ruficeps Doubled.-Mex.-C. B. M. Heteroc. 284.

pretus Cram.—Jam.—Cram. II, 121. Hübn. Samml. exot. add.

achemon Fab.—Jam.—Fab. Spec. II, 162. Mant. II, 104. C. B. M. Heteroc. 277.

dares Cram.—W. Ind.—Cram. I, 76. C. B. M. Heteroc. 277.

fenestrata Cram.—Jam.—Cram. V, 140. Drur. I, 54, pl. 25. C. B. M. Heteroc. 277.

'vulcanus Doubled.-Mex.-C. B. M. Heteroc. 288.

subcyanea Doubled.—Mex.—C. B. M. Heteroc. 230.

lichas Fab.—W. Ind.—Fab. Sp. II, 505. Mant. II, 104. C. B. M. Heteroc. 211.

bella Doubled.—Mex.—C. B. M. Heteroc. 216.

# Fam. SESIADAE.

# Trochilium Steph. Sesia F. Aegeria F.

marginatum Harr.—North. St.—Harr. Sphing. 309. Silliman's Journ. XXXVI, 309.

tibiale Harr.—North. St.—Harr. Sphing. Silliman's Jour. XXXVI, 309. denudatum Harr.—North. St.—Harr. Sphing. 309. Harr. Ins. Mass. 232.

tricincta Harr.—North. St.—Harr. Sphing. Sol. Harr. Ins. Mass. 2 tricincta Harr.—North. St.—Har. Sphing. Silliman Journ. XXXVI.

cucurbitae Harr.—North. St.—Harr. Sphing. Harr. Ins. Mass. 232.

caudata Harr .-- North. St .-- Harr. Sphing.

syringae Harr.—North. St.—Harr. Sphing.

tipuliformis Harr.—North. St.—Harr. Sphing. Harr. Ins. Mass. 234.

fulvipes Harr.—North. St.—Harr. Sphing.

scitula Harr.-North. St.-Harr. Sphing.

pyri Harr.—North. St.—Harr. Sphing. Harr. Ins. Mass. 235.

exitiosa Harr.—U. S.—Harr. Sphing. Say Amer. ent. II, pl. 19. pepidiformis Hübn. f. 553, 4. Harr. Ins. Mass. 232.

# Thyridopteryx.

ephemeraeformis Steph.—U. S.—Steph. Doubleday, Entomolog. 97.

# Thyris Illig.

maculata Harris.—U. S.—Harris, Sphing. Silliman Journ. XXXVI. lugubris Boisd.—U. S.—Boisd. Spec. gén. pl. 14.

#### Urania Fab.

fulgens Doubled.—Mex.—C. B. M. heteroc. 5. Boisduvalii Doubled.—Mex.—C. B. M. heteroc. 4. Guér. Règ. an. 82. fernandinus MacLeay.—Cuba.—MacLeay, Trans. Zool. Soc. I, 180.

## Fam. SPHINGIDAE.

[This Family has been elaborately monographed by Dr. B. Clemens, in vol. IV, New Series, of the *Journal Acad. Nat. Sciences*, Phila. 1859.]

# Sesia Fab.

pelasgus Cram.—U. S.—Cram. III, 93, pl. 248. thisbe Fab. cimbiciformis Steph. Harr. Sphing. 308. Harr. Ins. Mass. 230.

diffinis Boisd.—U. S.—Boisd. Spec. gén. pl. 15, f. 2. Harr. Sphing. 308. Harr. Ins. Mass. 230. fuciformis Sm. Abb. I, 85, pl. 43.

ruficaudis Kirb.—Canada.—Kirb. Faun. Bor. IV, 303.

satyriniformis Hübn.—N. Am.—Hübn. fig. 453.

fusicaudis Walk.—Ga.—Walk. C. B. M. pt. VIII.

#### Macroglossa Ochs.

flavofasciata Walk.—Hudson's Bay.—Walk. C. B. M. pt. VIII, 87.

tantalus Linn.—South and west.—Fab. Sp. Ins. II, 1531, 1. Cram. I, 107, pl. 68. Clemens, 131. ixion Linn. Syst. Nat. II. 803, 26. zonata Drury I, 57, pl. 26. titan Cram. II, 73, pl. 142. annulosum Swains. III, pl. 132. balteata Kirtland, Sillim. 13 n. s. 39, 337.

ceculus Cram.—Mex.—Cram. II, 80, pl. 146. Clem. Synop. 132. fas-ciatum Swains. III, pl. 132.

sagra Poey.-W. Ind.-Poey. Cent. Dec. II. Clem. Synop. 132.

#### Perigonia Boisd.

Iusca Fab. —Mex. —Fab. Sp. Ins. II, 140, 5. stulta Boisd. Herr. Schaeffer, Samm. exot. ser. 1. Clemens, 138.

subhamata Walk.—Mex.—Walk. C. B. M. pt. VIII, 102. Clem. Synop. 138.

glaucescens Walk.—Mex.—Walk. C. B. M. pt. VIII, 103. Clem. Synop. 138.

undata Walk.—Jam.—Walk. C. B. M. pt. VIII, 103. Clem. Synop. 138.

# Enyo Hübn.

lugubris Drur.—U. S.—Drur. I, 61, pl. 28. Sm. Abb. pl. 30. Hübn. Zutr. 595, 6. fegens Cram. III, pl. 225. Clemens, Synops. 139. camertus Cram.—Mex.—Cram. III, pl. 225. Clem. Synop. 140.

# Proserpinus Hübn. Pterogon Boisd.

inscriptum Harr.—Indiana.—Ilarr. Sphing. Silliman Journ. XXXVI. Genus Deidamia Clemens, 137.

gaurae Sm.—Ga.—Sm. Abb. I, 61, pl. 31. Nat. Lib. XXXVI.

Clarkiae Boisd.—California.—Ann. Soc. ent. X, 2me Sér. 318. Clem. 134.

#### Arctonotus Boisd.

lucidus.—Boisd. Ann. Soc. Ent. X, 2me Sér. 319. Clemens, 188.

# Thyreus Swainson.

Abbotii Swains.—U. S.—Harr. Sphing. 27. Clemens, 135.
nessus Cram.—U. S.—Harr. Sphing. 28. Cram. II, 9, pl. 107. Clem. 136.
? thetis Drury.—Jam.—Drury (Westw.) I, pl. 26, f. 4. (Zygaena thetis.)
Fab. Ent. Syst. III, 1, 391. Gmel. Linn. Syst. Nat. 2393, 115.

# Sphinx Linn.

- leucophaeta Clem.—Tex.—Clemens, Synop. Jour. Ac. N. S. Phila. 1859 IV. 168.
- cingulata Fab.—Mid., South. St.—Fab. Ent. Syst. emend. III, 375. convolvuli Sm. Ab. I, pl. 32. Harr. Sphing. Sillim. Journ. XXXVI. Drurei Donovan. Clemens, J. Acad. IV, 164.
- quinquemaculata Haw.—North. St.—Harr. Sphing. Sillim. Journ. XXXVI. Clemens, 166. celeus IIübn.
- carolina Linn.—South. St.—Drur. I, 52, pl. 25, f. 1. Sm. Abb. I, pl. 33. Harr. 249. Clemens, 165.
- drupiferarum Sm. Abb.—South. St.—Sm. Abb. 71, pl. 36. Clem. 172. kalmiae Sm.—South. St.—Sm. Abb. 73, pl. 37. Harr. Sphing. Harr
- Ins. Mass. 230. Clem. 171. Anceryx coniferarum Walker.
- gordius Cram.—U. S.—Harr. Sphing. Harr. Ins. Mass. 230. Clem. 173. cinerea Harr.—U. S.—Ins. Mass. 230. Harr. Sphing. chersis Hübb.
- sordida Hübn.—U. S.—Harr. Sphing. emeritus Hübn. lugens Walk. hylaeus Drury.—U. S.—Drury, II, 45, pl. 107. Harr. Sphing. Ins. Mass.
- 230. prini Sm. Abb. dynaeus Hübn. Dolba hylaeus Walk., Clem. 178. plebeia Fab.—U. S.—Harr. Sphing. Silliman's Journ. XXXVI. Clem. 170. coniferarum Sm.—U. S.—Sm. Abb. 83, pl. 42. Harris Sphing. Silliman's Journ. XXXVI. Clem. 174.
- ello Linn.—South. St.—Harr. Sphing. Silliman's Journ. XXXVI. Clem.
- chionanthi Sm.—U. S.—Sm. Abb. 1, pl. 34. rustica Cram. Pap. exot. t. 301, f. A. Nat. Libr. XXXVII, 101, pl. 5. Macrosila rustica Clem. 163.
- brontes Drury.-U. S.-Drury 29, f. 4. Macrosila brontes Clem. 166.

hasdrubal Cram.—W. Ind.—Cram. III, 90, pl. 246. Clem. 161, (Macrosila.) cluentius Cram.—W. Ind.—Cram. I, pl. 78. Clem. 131, (Macrosila.) forestan? Cram.—Hond.—Cram. IV, pl. 394. Clem. 167, (Macrosila.) obscura Fab.—Mex.—Fab. Spec. II, 142. Fab. Syst. emend. III, 361. Clem. 176, (Anceryx.) stheno Hübn.

scyron Cram.—W. Ind.—Cram. IV, pl. 301. Clem. 176, (Anceryx.) guttularis Walk.—St. Dom.—Walk. C. B. M. 227. Clem. 177, (Anceryx.) oenotrus Cram.—Mex.—Cram. IV, pl. 301. Walk., Clem. (Anceryx.) caicus Cram.—W. Ind.—Cram. II, pl. 125. Walk., Clem. (Anceryx.) alope Drur.—Jam.—Drur. (Westw.) I, pl. 27, f. 1. Walk., Clem. (Anceryx.) antaeus Drur.—Jam.—Drur. (Westw.) II, pl. 25. hydaspes in Fabr.

Cram. pl. 118. iatrophae Fab. E. S. III, 1, 362. Clem. 162 (Macros.)
Iuscitiosa Clem.—Wisc., N. York.—Clemens, Synopsis, 172.
jasminearum Le Conte.—U. S.—Le Conte, Art. Ent. in Ency. Brit. pl. 236.
Clemens, Synop. 173.

#### Philampelus Harris.

vitis Linn.—South. St.—Linn. Syst. Nat. II, 801. Drur. I, pl. 28. Sm. Ab. II, 79, pl. 40. Harr. Sphing. Silliman, XXXVI. Nat. Libr. XXXVII, 104, pl. 7. Clemens, 156.

satellitia Linn.—U. S.—Linn. Syst. Nat. 2301. Drur. I, pl. 29. Harr. Sphing. Clemens, 154. lycaon Cram. pandorus Hübn.

achemon Drur.—U. S.—Drur. II, pl. 29, fig. 1. crantor Hübn. Sm. Abb. II, 81, pl. 41. Harr. Sphing. Clemens, 155.

labruscae Merian.—Mex.—Mer. Ins. Sur. pl. 34. Clemens, 156. Jussieuae Hübn.—Mex.—Hüb. exot. Baud. 1. fasciatus Snlz. pl. 20. typhon Klug.—Mex.—Klug. Nene Schmett. pl. 3. Clemens, 155.

## Pachylia Walk.

inconspicua Walk.—Jam.—Walk. C. B. M. pt. VIII, 190. Clem. 160. ficus Merian.—Mex.—Mer. pl. 33. Drur. II, pl. 26. Walk., Clem. 158. inornata Clem.—Honduras.—ficus Cram. IV, pl. 394. Clemens, 159. resumens Walk.—Honduras.—Walk. C. B. M. pt. VIII, 190. Clem. 159.

# Darapsa Walk. Choerocampa Dup. Harr. Metopsilas Dunc. Deilephila Boisd.

pampinatrix Sm.—U. S.—Sm. Abb. I, pl. 28. Harr. Sphing. Silliman, XXXVI. myron Cram. III, pl. 247. Darapsa myron Walk., Clem. 146. cnotus IIübn. Zutr. exot. f. 321.

choerilus Cram.—U. S.—Cram. III, 247. azaleae Sm. Abb. I, pl. 27. Harr. Sphing.

versicolor Harr.—U. S.—Harr. Sphing. 303. Darapsa versic. Clem. 148. pholus Cram.—W. Ind.—Cram. I, pl. 87. Clem. 148.

rhodocera Walk.-St. Dom.-Walk. C. B. M. pt. VIII, 184.

#### Choerocampa Dup.

tersa Linn.—South. St.—Linn. Mant. I, 358. Sm. Abb. II, 75, pl. 38.
Drur. I, pl. 28, fig. 3. Harr. Sphing. Nat. Lib. XXXVII, 99, pl.
5, f. 1. Cram. pl. 397. Fab. Ent. Syst. III, 1, 378. Clem. 150.

chiron Drur.—Jam.—Drur. (Westw.) I, pl. 26, f. 3. Clem. 150. procne Clem.—Calif.—Clemens, Synop. Journ. Ac. N. S. Phila. 1859, 151. versuta Clem.—Mex.—Clem. Syn. Journ. Ac. N. S. Phila. 1859, 152. falco Walk.—Mex.—Walk. C. B. M. pt. VIII, 132. Clem. 151. drancus Cram.—W. Ind.—Cram. II, pl. 132. Clem. 151. nitidula Clem.—Mex.—Clemens, Synop. Journ. Ac. N. S. Phila. 1859, 151. thalassina Clem. 150.

# Ambulyx Boisd.

ganascus Stoll.—Mex.—Cram. V, 157, pl. 35. Drur. I. 62, pl. 28. Clem. 153. strigilis Linn.—Jam.—Mant. I, 538. Drury, pl. 28, f. 4. Clem. 152.

# Deilephila Ochs.

lineata Fab.—U. S.—Fab. E. S. III, 1, 368. Sm. Abb. II, 77, pl. 39. Harr-Sphing. Silliman's Journ. XXXVI. Haldeman, in Stansb. Exp. 366. daucus Cram. II, 41, pl. 125. Clemens, 143.

Chamaenerii Harr.—U. S.—Harr. Sphing. Agass. Lake Sup. 387, pl. 7. intermedia Kirb.—Can.—Kirb. Faun. Bor. IV, 302. D. galii var. Clem.

# Pergesa Walk.

thorates Hübn.-Mex.-Hübn. exot. f. 525. Clemens, 145.

#### Ceratomia Harr.

quadricornis Harr.—U. S.—Harr. Sphing. Clem. 179. amyntor Hübn. repentinus Clem.—U. S.—Clemens, Synops. 180.

#### Smerinthus Latr.

excaecatus Sm.-U. S.-Sm. Abb. I, pl. 25. Say, Am. Ent. Harr. Sphing-Silliman's Journ. XXXVI. Clemens, 182.

astylus Drur.—U.S.—Drur. I, pl. 26. Ilarr. Sphing. Clem. 184. io Boisd. myops Sm.—U. S.—Sm. Abb. I, pl. 26. Harr. Sphing. Clem. 181. rosacearum Boisd. Spec. gén. pl. 15.

geminatus Say.—U. S.—Say, Amer. Ent. I, pl. 12, fig. 1, 2. Harr. Sphing. Clem. 183. Var. ocellatus jamaicensis? Drur. Cerisii Kirb. Faun. Bor. 301.

juglandis Sm.—U. S.—Sm. Abb. I, pl. 30. Harr. Sphing. Clem. 185. modestus Harr.—U. S.—Harr. Sphing. Agass. Lake Sup. 388. Clem. 183. opthalmicus Boisd.—Calif.—Boisd. Ann. Soc. ent. tom. III, 3d sér. xxxII.

#### Daremna Walk.

undulosa Walk.—Can.—Walker, 231. Clemens, 186.

# Oenosanda Walk.

noctuiformis Walk.—St. Dom.—Walker, 232. Clemens, 187.

#### Ellema Clem.

Harrisii Clem.—U.S. coniferarum Harr. 297. Clemens, 188.

# Fam.. SATURNIADAE.

## Saturnia Schr. Attacus Hübn.

- Iuna Drur.—U. S.—Drur. III, pl. 24. Sm. Abb. I, 95, pl. 48. Linn. Syst. Nat. 1, 2, 810. Harr. Ins. Mass. 277.
- promethea Drur.—U. S.—Drur. I, pl. 11. Sm. Abb. I, 91, pl. 4. Harr.
   Ins. Mass. 281. Cram. I, 118, pl. 75. Beauv. pl. 21. Fab. Ent.
   Syst. 558—7.
- cecropia Linn.—U. S.—Linn. Syst. Nat. II, 809. Sm. Abb. I, 89, pl. 45. Harr. Ins. Mass. 279. Peale Lep.
- polyphemus Fab.—U. S.—Fab. Spec. Ins. II, 168. Sm. Abb. I, 93, pl. 47. Harris, Ins. Mass. 279. Peale Lep.
- angulifera Cat.—U. S.—Cat. Br. Mus. Heteroc. 1224.
- euryalus Boisd.—N. Am.—Boisd. Ann. Soc. Ent. III, 2me Sér. XXXII.
- calleta Westw.-Mex.-Westw. Ann. Nat. Hist. 2d Ser. XV, 279.
- lavendra Westw.—Mex.—Westw. Ann. Nat. Hist. 2d Ser. XV, 1274.
- orizaba Westw.—Mex.—Westw. Ann. Nat. Hist. 2d Ser. XV, 294. C. B. M. 1203.
- jorula Westw.—Mex.—Westw. Ann. Nat. Hist. 2d Ser. XV, 298. C. B. speculifer Doubled.—Mex.—C. B. M. 1206. [M. 1202.

# Aglia Ochs. Saturnia Schr.

- io Fab.—U. S.—Fab. Sm. Abb. I, 97, pl. 49. Ins. Mass. 284. Nat. Lib. XXXVII, 156, pl. 16.
- maia Drur.—U. S.—Drur. II, pl. 24. Sm. Abb. 90, pl. 50. Godt. Eneyc.
   V, 37. Harris, Ins. Mass. 285. proserpina Fab. E. S. 561. Nat.
   Lib. XXXVII, 154, pl. 16.
- hera Harris.—U. S.—Ins. Mass. 286.
- ? paphia Fab.—U. S.—Fab. Ent. Syst. 557. Godt. Encyc. V, 25.
- ? chryseis Godt.—U. S.—Godt. Eneyc. V, 38.
- eglanteria Boisd.—Californ.—Boisd. Ann. Soc. ent. 2me Sér. X, 323.
- pica Doubled.-U. S.-C. B. Mus. Heteroc. 1318.
- ? magaera Fab.—N. A.—Fab. Mant. II, 109, 12. Fab. Ent. Syst. III, 1. C. B. Mus. 1378.

#### Dryocampa Harr.

- imperialis Drur.—U. S.—Drur. I, pl. 9. imperatoria Sm. Abb. Harris, Ins. Mass. 290. Cram. V, 178.
- bicolor Harris.—South. St.—Ins. Mass. 293.
- pellucida Sm.—Ga.—Sm. Abb. 115, pl. 58. virginiensis Drur. pl. 13. astynome? Oliv. Encyc. V, 43, 73. Fitch, Fifth Report.
- rubicunda Fab.—U. S.—Fab. E. S. III, 1, 429. Harris, Îns. Mass. 293.
- senatoria Sm.—U. S.—Sm. Abb. 113, pl. 57. Harris, Ins. Mass. 292. Fitch, Fifth Report.
- stigma Sn.—U. S.—Sn. Abb. III, pl. 56. Harr. Ins. Mass. 292. Oliv. Encyc. 42, 69. Hübn. exot. 1. C. B. M. 1496. Fitch, Fifth Report.

# Ceratocampa Harr.

regalis Fab.—U. S.—Fab. E. S. III, 1, 436, 93. Harr. Ins. Mass. 289. Duncan, Nat. Lib. XXXVII, pl. 18. regia Sm. Ab. 161, pl. 61. laocoon Cram. Pap. exot. II, 80.

# Clisiocampa Harr.

sylvatica Harr.—U. S.—Harr. Ins. Mass. 271. Fitch, Fifth Report. neustria Sm. Abb.

# Fam. BOMBYCIDAE.

# Gastropacha Ochs.

americana Sm.—N. Am.—Sm. Abb. 101, pl. 51. Harr. Ins. Mass. 273.
velleda Stoll.—U. S.—Stoll. Cram. exot. 178, pl. 41. Sm. Abb. 103, pl. 52. Harris, Ins. Mass. 275.

occidentalis Donbled.—U. S.—C. B. M. 1393. ilicifolia Sm. Abb. I, 101, laricis (Planosa) Fitch.—U. S.—Fitch, N. Y. Rep. 266. [pl. 51. ? quercaria Sm.—U. S.—Sm. Abb. pl. 103.

# Artace Doubleday.

punctistriga Doubled.—N. A.—C. B. M. 1491. albicans Doubled.—N. A.—C. B. M. 1492. punctatissima Doubled.—N. A.—C. B. M. 1491.

# Fam. NOTODONTIDAE.

#### Notodonta Ochs.

anguina Sm.—U. S.—Sm. Abb. II, 167, pl. 83. unicornis Sm.—U. S.—Sm. Abb. II, 165, pl. 86. Ins. Mass. 307. C. B. basistriens Doubled.—U. S.—C. B. M. 1000. [M. 1030. angulosa Doubled.—Ga.—C. B. M. 999. Sm. Abb. II, 165, pl. 83.

# Heterocampa Doubleday.

astarte Doubled.—Flor.—Doubled. Entomol. 57. C. B. M. 1023. manteo Doubled.—Flor.—Doubled. Entomol. 58. C. B. M. 1029. umbrata Doubled.—Flor.—C. B. M. 1023. biundata Doubled.—N. Y.—C. B. M. 1025. ipomae Doubled.—Flor.—Doubled. Entomol. 60.

## Datana Walk.

contracta Doubled.—N. A.—C. B. M. 1062. aurora Sm.—Ga.—Sm. Abb. II, 173, pl. 87. C. B. M. 1062. ministra Sm.—U S.—Sm. Abb. II, 161, pl. 81. C. B. M. 1061.

# Nerice Doubleday.

bidentata Doubled.-N. Y.-C. B. M. 1076.

# Pygaera Ochs.

torrefacta Sm.—Ga.—Sm. Abb. II, 76. C. B. M. 1088. albifrons Sm.—U. S.—Sm. Abb. II, 161, pl. 81. C. B. M. 1029. concinna Doubled.—U. S.—C. B. M. 1030. producta Doubled.—Flor.—C. B. M. 1031. ? gibbosa Sm.—U. S.—Sm. Abb. II, 163, pl. 32.

#### Cerura Schrank.

furcula? Sm.—South. St.—Sm. Abb. 141, pl. 71. Guér. Icon. Règ. borealis Harr.—Mass.—Ins. Mass. 306. [an. Griff. bifida Doubled.—Huds. Bay.—C. B. Mus. 984.

#### Tanada Walk.

antica Doubled .- Ga.-C. B. M. 1745.

# Eudryas Hübn.

grata Fab.—U. S.—*Bombyx grata* Fab. Ent. Syst. III, 457. Harr. Ins. Mass. 310. unio Hübn.—U. S.—Hübn. Harr. Ins. Mass. 310.

# Clostera Stephens.

inclusa Hübn.—Ga.—Hübn. Zutr. anastamosis Sm. Abb. 143, pl. 72. apicalis C. B. B.—Hudson's Bay.—C. B. M. 1058. americana Harr.—U. S.—Ins. Mass. 314.

#### Fam. ARCTIADAE.

# Orgyia Ochs.

leucostigma Sm.—U. S.—Sm. Abb. II, 157, pl. 79. Harr. Ins. Mass. 262. vetusta Boisd.—Californ.—Boisd. Ann. Soc. ent. 2me Sér. X, 322. C. B. antiqua Linn.—U. S., Eur.—Ins. Mass. 263. [M. 786.

#### Dasychira Steph.

achatina Sm.—South. St.—Sm. Abb. II, 153, pl. 77. C. B. M. 865. leucophaea Sm.—Ga.—Sm. Abb. II, 155, pl. 78. Hübn. Samml. II. C. B. M. 870. opercularis (Lagoa) Sm.—Ga.—Sm. Abb. II, 105, pl. 53. C. B. M. 1760.

pyxidifera (Lagoa) Sm.—Ga.—Sm. Abb. II, 107, pl. 54. C. B. M. 1760.

# Phragmatobia Steph. Arctia Hübn.

vagans Boisd.—Californ.—Boisd. Ann. Soc. ent. 2me Sér. X, 322. assimilans Doubled.—U. S.—C. B. M. 630. albicosta Doubled.—Mex.—C. B. M. 630.

## Apantesis Walk.

radians Walk.—Ga.—C. B. M. 632.

# Spilosoma Steph. Arctia Schr.

acrea Drnr.—U. S.—Drur. I, 7, pl. 3. Fab. Ent. S. III, 1, 451. Sm. Abb.
 133, pl. 67. Nat. Lib. XXXVII, 171, pl. 20. pseuderminea Peck,
 Agric. Repos. VII, 328. capratina Cram. Exot. III, 170, pl. 287.
 C. B. M. 667.

echo Sm.—Ga.—Sm. Abb. II, 135, pl. 68. Hübn. Verz. 184. C. B. M. 668. virginica Fab.—U. S.—Fab. Supp. Ent. Syst. 437. C. B. M. 668. Harr. Ins. Mass. 248. epimenis Drur. III, pl. 29.

cunea Drur.—U. S.—Drur. I, 36, pl. 18. C. B. M. 669. punctatissima Sm. Abb. 139, pl. 70.

congrua Doubled.—Ga.—C. B. M. 669.

egle Drur.-U. S.-Drur. II, 36, pl. 20. C. B. M. 669.

#### Arctia Auct.

caja Fab.—U. S., Eur.—Fab. Ent. Syst. 581. Agass. Lake Sup. C. B. M. 600.

americana Har.—N. A.—Agass. Lake Sup. 391, pl. 7. Ins. Mass. 246.
C. B. M. 606.

parthenos Kirby.—N. A.—Agass. Lake Sup. 390, pl. 7. C. B. M. 608.

virgo Liun.—N. A.—Linn. Mus. Lud. Ulsr. 381. Clerck, Icon. pl. 45. Fab.
Sp. Ins. II, 199. Oliv. Eneyc. V, 93. Hübn. Exot. II. Sm. Abb.
II, 123, pl. 62. Nat. Lib. XXXVII, 175, pl. 19. Harr. Ins. Mass.
244. C. B. M. 608. Var.? Callimorpha parthenice. Kirb. Faun. Bor.
IV, 303, pl. 4.

arge Drur.—U. S.—Drur. I, pl. 18. Nat. Lib. XXXVII, 174, pl. 19. Oliv. Eneye. V, 93. dione Fab. E. S. III, 1, 442. Sm. Abb. II, 125, pl. 63. phalerata Harr.—U. S.—Ins. Mass. 245.

virginalis Boisd.—Californ.—Boisd. Ann. Soc. ent. 2me Sér. X, 321.

virguncula Kirb.—U. S.—Kirb. Faun. Bor. IV, 304, 2, pl. 4. C. B. M. 609. placentia Sm.—N. A.—Sm. Abb. II, 129, pl. 65. C. B. M. 610.

nais Drur.—U. S.—Drur. I, pl. 7. C. B. M. 609.

phyllira Drur.—U. S.—Drur. I, 15, pl. 7. Oliv. Encyc. V, 94. Sm. Abb. II, 127, pl. 64.

isabella Sm.-U. S.-Sm. Abb. II, 131, pl. 68. C. B. M. 611.

rubricosa Harr.—U. S.—Ins. Mass. 253.

textor Harr.—Ga.—Ins. Mass. 255.

? graphica Hübn.—U. S.—Hübn. pl. 3.

hebraica Hübn.—U. S.—Hübn. fig. 387.

collaris Fitch.—North. St.—Fitch State Agric. Rep. 383.

punctata Fitch.-Miss.-Fitch State Agric. Rep. 383.

dahurica Boisd.—Californ.—Boisd! Ann. Soc. ent. 2me Sér. X, 321.

gelida Doubled.—Labr.—C. B. M. 611.

hyperborea Doubled.—Arc. Am.—C. B. M. 611.

# Nemeophila Steph. Arctia Schr.

figurata Drur.—Va.—Drur. II, 22, pl. 12. Beauv. Lep. pl. 24. C. B. M. californiae Walk. C. B. M. 625.

petrosa Doubled.—Rocky Mtns.—C. B. M. 626.

rufula Boisd.—Californ.—Boisd. Ann. Soc. ent. III, 3d Ser. XXXII.

# Ecpantheria Hübn.

scribonia Stoll.—N. Am.—Stoll. Cram. Exot. V, 177, pl. 41. ocularia Fab. E. S. III, 1, 425. oculatissima Sm. Abb. II, 137. Nat. Lib. XXXVII. C. B. M. 689.

caudata Doubled.—Mex.—C. B. M. 689.

incarnata Doubled.—Mex.—C. B. M. 690.

extrema Doubled.—Mex.—C. B. M. 691.

obliterata Doubled.-W. Ind.-C. B. M. 691.

nigriplaga Doubled.—W. Ind.—C. B. M. 692.

simplex Doubled.—W. Ind.—C. B. M. 692.

decora Doubled.—St. Dom.—C. B. M. 693.

# Deiopeia Steph.

bella Drur.—U. S.—Drur. I, 52, pl. 24. Encyc. V, 99. Harris, Ins. Mass. 241. Nat. Libr. XXXVII, 191, pl. 24.

speciosa Doubled.—Jam.—C. B. M. 568.

ornatrix Drur.—Antigua.—Drur. (Westw.) I, pl. 24, f. 2.

# Callimorpha Latr. Hypercampa C. B. M.

clymene Esper.—U. S.—Esper. Schmet. IV, 22. C. B. M. 651. Colone Hübn. Bombyx. 135, 8, pl. 31.

confinis Doubled.—U. S.—C. B. M. 661.

contigua Doubled.—U. S.—C. B. M. 650.

comma Doubled.—U. S.—C. B. M. 652.

militaris Harr .- Mass. - Ins. Mass. 243. Var. Lecontei.

carolina Harr .- Ins. Mass. 243.

vinosa Drur.—Jam.—Drur. I, 43, pl. 23. C. B. M. 333.

# Encyane Hübner.

pylotis Drury-Mex.-Drur. 11, 9, pl. 5. Encyc. V. 99. C. B. M. Het. 362.

#### Chrysauge Hübner.

dimas Cram.-Mex.-Cram. I, 91, pl. 59. C. B. M. 375.

#### Endule Hübner.

variegata Doubled.-Jamaica.-C. B. M. 380.

# Lophocampa Harr. Malesidota Hübn.

caryae Harr.—U. S.—Ins. Mass. 259. Fitch, N. Y. Rep. 163. tesselaris Sm.—U. S.—Sm. Abb. III, 149, pl. 75. fulvo-flava Doubled.—U. S.—C. B. M. 733. annulifascia Doubled.—U. S.—C. B. M. 734. bicolor Doubled.—Mex.—C. B. M. 734. insulata Doubled.—Jam.—C. B. M. 734. palpalis Doubled.—Jam.—C. B. M. 735. strigosa Doubled.—St. Dom.—C. B. M. 736.

#### Lycomorpha Harris.

dimidiata Herr. Schaef.—Ga.—Herr. Schaef. exot. Sp. nov. ser. 1, f. 222.

#### Fam. LITHOSIADAE.

# Gnophria Steph.

vittata Harr.—U. S.—Harr. Ins. Mass. 241. miniata Kirby, Faun. Bor. IV, 305.

## Lithosia Fab.

pupula Hübn.-U. S.-Hübn. Exot. II, 24, 164, f. 327. C. B. M. 522.

# Fam. CYMATOPHORADAE.

#### Cymatophora Treitschke.

caniplaga Doubled .- Can. - C. B. M. noct. 18.

# Thyatira Hübn.

abrasa Guén.—N. Y.—Guén. noct. I, 12. pudens Guén.—North. St.—Guén. noct. I, 13. C. B. M. noct. 8. cymatophoroides Guén.—N. Am.—Guén. noct. I, 13.

# Fam. NOCTUADAE. NOCTUAE Linn.

# Diphthera Ochs.

fallax Herr. Sch.—Ten.—Herr. Sch. Exot. f. 2, 11. C. B. M. noct. 35. jocosa Guén.—N. Am.—Guén. noct. I, 37, 40. C. B. M. noct. 36. deridens Guén.—N. A.—Guén. noct. I, 35, 37. C. B. M. noct. 36. cavillator Doubled.—Mex.—C. B. M. noct. 37.

## Acronycta Ochs.

tritona Guén.—Flor.—Guén. noct. I, 42. C. B. M. 53. Hübn. Zutr. 107. Psi ? Guén.—N. Y.—Guén. noct. I, 43.

Iobeliae Guen.—N. Y.—Guén. noct. I, 44. C. B. M. noct. 54. furcifera Guén.—Flor.—Guén. noct. I, 44. C. B. M. noct. 54. hasta Guen.—U. S.—Guen. noct. I, 45. C. B. M. noct. 54. telum Guén.-U. S.-Guén. noct. I, 45. C. B. M. noct. 54. spinigera Guen.-N. Y.-Guén. noct. I, 46. C. B. M. noct. 54. interrupta Guén.—Ga.—Guén. noct. 1, 46. C. B. M. noct. 54. Iepusculina Guén.—U. S.—Guén. noct. I, 46. C. B. M. 55. hastulifera Sm.—U. S.—Sm. Abb. II, 183, pl. 92. Boisd. Ann. Soc. ent. C. B. M. noct. 57. acericola Guén.—Ga.—Guén. noct. I, 48. C. B. M. noct. 57. rubricorna Guén.—N. A.—Guén. noct. I, 48. C. B. M. noct. 57. oblinata Guén.—U. S.—Guén. noct. I, 47. Sm. Abb. II, 187, pl. 94. Guén. noct. 1, 49. C. B. M. noct. I, 58. innotata Guén.—N. Y.—Guén. noct. I, 50. C. B. M. noct. 59. brumosa Guén.—Flor.—Guén. noct. I, 52. C. B. M. noct. 59. hamalelis Guén.—U. S.—Guén. noct. I, 52. C. B. M. noct 59. superans Guén.—N. Y.—Guén. noct. I, 53. C. B. M. noct. 59. clarescens Guén.—N. Am.—Guén. noct. I, 54. C. B. M. noct. 60. Ionga Guén.—N. Am.—Guén. noct. I, 54. C. B. M. noct. 60. xylinoides Guén.-U. S.-Guén. noct. I, 56. C. B. M. noct. 60. circulifera Guén.—Flor.—Guén. noct. I. 709. modica Doubled.—Hudson's Bay.—C. B. M. noct. 56. grisea Doubled.—Hudson's Bay.—C. B. M. noct. 57. contacta Doubled.—Hudson's Bay.—C. B. M. noct. 58. declarata Doubled.—Can.—C. B. M. noct. 61. impressa Doubled.—Hudson's Bay.—C. B. M. noct. 61. insita Doubled.—Can.—C. B. M. noct. 61. fasciata Doubled.—Hudson's Bay.—C. B. M. noct. 62. mixta Doubled.—Huds. Bay.—C. B. M. noct. 62. leporina Doubled.—Huds. Bay.—C. B. M. noct. 44. distinguenda Doubled.—St. Dom.—C. B. M. noet. 63.

# Bryophila Treitschke.

palliatricula Guén.—N. Y.—Guén. noct. I, 26. C. B. M. noct. 26.
teratophora Herr. Schaef.—Ten.—Herr. Schaef. exot. f. 213. C. B. M. noct. 27.
corticosa Guén.—N. Am.—Guén. noct. I, 30. C. B. M. noct. 27.

discitincta Doubled.—Hudson's Bay.—C. B. M. noct. 27. discivaria Doubled.—Hudson's Bay.—C. B. M. noct. 28. nana Hübn.—Ga.—Hübn. Exot. I, 14, f. 23. Verz. 205. C. B. M. noct. 26.

discinigra Doubled.—Hudsou's Bay.—C. B. M. noct. 28.

## Grammophora Guénée.

hebraea Hübn.—Ga.—Hübn. Exot. I, 10, f. 25. Guén. noct. I, 31. С. В. М. noct. 29.

cora Hübn.—N. Am.—Hübn. Exot. I, 14, f. 59. Guén. noct. I, 31. C. B. M. noct. 29.

trisignata Doubled.—Can.—C. B. M. noct. 29.

# Xanthia Ochs.

rufago Hübn.—Ga.—Hübn. Exot. I, 15, 31. Guén. noct. I, 392. C. B. M. noct. 464.
aurantiago Guén.—Flor.—Guén. noct. I, 394. C. B. M. noct. 464.
bicolorago Guén.—N. Y.—Guén. noct. I, 397. C. B. M. noct. 464.
ferrugineoides Guén.—N. Am.—Guén. noct. I, 398.
silago Guén.—Huds. Bay.—Guén. noct. I, 394. C. B. M. noct. 460.
viridescens Doubled.—St. Dom.—C. B. M. noct. 465.
spurgata Doubled.—Can.—C. B. M. noct. 749.

#### Microcoelia Guénée.

fragilis Guén.—N. Y.—Guén. noct. I, 34. C. B. M. noct. 31. diphtheroides Guén.—N. Y.—Guén. noct. I, 34. C. B. M. noct. 31.

# Gortyna Ochs.

zeae Harr.—U. S.—Harr. Ins. Mass. 319.
leucostigma Guén.—U. S.—Guén. noct. I, 123. C. B. M. noct. 157.
rutila Guén.—U. S.—Guén. noct. I, 123. C. B. M. noct. 157.
marginidens Guén.—Ill.—Guén. noct. I, 123. C. B. M. noct. 157.
limpida Guén.—Ill.—Guén. noct. I, 123. C. B. M. noct. 157.
nebris Guén.—Ill.—Guén. noct. I, 124. C. B. M. noct. 157.
nitella Guén.—Ill.—Guén. noct. I, 124.

#### Leucania Ochs.

straminea Treitsch.-N. Y., Eur.-Treitsch. Guén. noct. I, 91. C. B. M. noct. 89. extranea Guén.—N. Amer.—Guén. noct. I, 77. C. B. M. 93. videns Guén.-Flor.-Guén. noct. I, 78. C. B. M. 94. extincta Guén.—Flor.—Guén. noct. I, 79. C. B. M. 94. diffusa Doubled.—Nov. Scot.—C. B. M. 95. insueta Guén.—N. Am.—Guén. noct. I, 81. C. B. M. noct. 95. linita Guén.—Flor.—Guén. noct. I, 81. C. B. M. noct. 95. littera Guén.—Flor.—Guén. noct. I, 71. C. B. M. noct. 77. obusta Guén.—U. S.—Guén. noct. I, 74. C. B. M. noct. 77. pseudargyria Guén.—U. S.—Guén. noct. I, 74. ebriosa Guén.—U. S.—Guéu. noct. I, 74. C. B. M. noct. 77. juncicola Guén.—U. S.—Guén. noct. I, 83. C. B. M. noct. 96. scirpicola Guén.—Flor.—Guén. noct. I, 84. C. B. M. noct. 96. commoides Guén.—N. Y.—Guén. noct. I, 86. C. B. M. noct. 96. albilinea Hübn.-N. A.-Hübn. exot. II, 25, 169, f. 337. Guén. noct. I, 89. C. B. M. noct. 99. phragmitidicola Guén.—N. Am.—Guén. noct. I, 89. C. B. M. noct. 97. multilinea Doubled.—Can.—C. B. M. noct. 97.

dorsalis Doubled.—St. Dom.—C. B. M. noct. 98.

## Mythimma Hübner.

contraria Doubled.—U. S.—C. B. M. noct. 78. tripars Doubled.—U. S.—C. B. M. noct. 78. vetusta Doubled.—Nov. Scot.—C. B. M. noct. 78.

# Nonagria Hübner.

inquinata Guén.—N. Y.—Guén. noct. I, 104. C. B. M. noct. 128. enervata Guén.—Flor.—Guén. noct. I, 105. C. B. M. noct. 128. fodiens Guén.—Flor.—Guén. noct. I, 105. C. B. M. noct. 128.

# Hydroecia Guénée.

erythrostigma Guén.—Guén. noct. I, 126. lorea Guén.—N. Y.—Guén. noct. I, 126. C. B. M. noct. 161. immanis Guén.—N. Y.—Guén. noct. I, 128. C. B. M. noct. 162. stramentosa Guén.—N. Y.—Guén. noct. I, 129. C. B. M. noct. 162. nictitans Doubled.—U. S.—C. B. M. noct. 159. Gn. noct. I, 126. salicarum Doubled.—Huds. Bay.—C. B. M. noct. 717.

# Glottula Guénée.

timais Cram.—Cram. III, 148, pl. 275. Hübn. exot. III, 39, f. 589. Guén. noct. I, 116. C. B. M.

# Cissusa Walk.

spadix Cram.—Va.—Cram. exot. III, 149, pl. 275. C. B. M. noct. 153.

#### Leptina Guénée.

dormitans Guén.—N. Y.—Guén. noct. I, 15. C. B. M. noct. 10. ophthalmica Guén.—N. Y.—Guén. noct. I, 15. C. B. M. noct. 10. Doubledayi Guén.—North. St.—Guén. noct. I, 15. C. B. M. noct. 10.

# Apatela Fab.

americana Harr.—U. S.—Ins. Mass. 317. aceris Sm.—South. St.—Sm. Abb. 185, pl. 93.

#### Mamestra Ochs.

picta Harr .- U. S .- Ins. Mass. 329.

arctica Encyc.—N. Am.—Encyc. 120. Herr. Schaef. Eur. Schm. H, 272, pl. 31. Guén. noct. I, 193. C. B. M. noct. 225.

fribolus Guén.—Guén. noct. I, 194.

abjecta Guén.—N. Am.—Guén. noct. I, 193. C. B. M. noct. 227.

impulsa Guén.—N. Y.—Guén. noct. I, 194. C. B. M. noct. 231.

passer Guén.—N. Y.—Guén. noct. I, 195. C. B. M. noct. 231.

dubitans Doubled.—N. Y.—C. B. M. noct. 232.

ordinaria Doubled.—N. Y.—C. B. M. noct. 232.

contenta Doubled.—Nov. Scot.—C. B. M. noct. 233.

unicolor Doubled.—Nov. Scot.—C. B. M. noct. 233.

insulsa Doubled.—Can.—C. B. M. noet. 234. adjuncta Guén.—N. Y.—Guén. noet. I, 199. C. B. M. noet. 234. configurata Doubled.—Mex.—C. B. M. noet. 234.

# Dianthaecia Guénée.

capsularis Guén.—Flor.—Guén. noct. II, 22. C. B. M. noct. 505.

# Mesogona Boisd.

culea Guén.—Flor.—Guén. noct. I, 404. C. B. M. noct. 474. madida Guén.—Mex.—Guén. noct. I, 404. C. B. M. noct. 474.

#### Cirroedia Guénée.

pampina Guén.—N. Y.—Guén. noct. I, 402. C. B. M. noct. 472.

# Cosmia Ochsenheimer.

orina Guén.-U. S.-Guén. noct. II, 10.

#### Orthosia Ochsenheimer.

nisciens Doubled .- U. S .- C. B. M. noct. 746.

# Orthodes Guénée.

infirma Guén.—U. S.—Guén. noct. I, 375.
cynica.—Guén.—N. Y.—Guén. noct. I, 375. C. B. M. noct. 443.
ninia Guén.—N. Y.—Guén. noct. I, 375. C. B. M. noct. 443.
candens Guén.—N. Y.—Guén. noct I, 376. C. B. M. noct. 444.
vecors Guén.—N. Y.—Guén. noct I, 376. C. B. M. noct. 444.

#### Apamea Ochs.

mactata Guén.—N. Y.—Guén. noct. I, 207. C. B. M. noct. 250. finitima Guén.—N. Y.—Guén. noct. I, 206. C. B. M. noct. 250. remissa Guén.—N. Y.—Guén. noct. I, 208. C. B. M. noct. 729. jaspis Guén.—N. Y.—Guén. noct. I, 209. C. B. M. noct. 250. modica Guén.—N. Y.—Guén. noct. I, 207. C. B. M. noct. 250. insignata Doubled.—N. Y.—C. B. M. noct. 729.

# Xylophasia Steph. Madena Boisd.

apamiformis Guén.—U. S.—Guén. noct. I, 132. C. B. M. noct. 176. lignicolora Guén.—N. Y.—Guén. noct. I, 140. C. B. M. noct. 176. verbascoides Guén.—N. Y.—Guén. noct. I, 141. C. B. M. noct. 177. sectilis Guén.—U. S.—Guén. noct. I, 141. C. B. M. noct. 177. mucens Hübn.—U. S.—Guén. noct. I, 142. C. B. M. noct. 177. confusa Hübn.—U. S.—Guén. noct. I, 142. C. B. M. noct. 177. cariosa Hübn.—U. S.—Guén. noct. I, 144. C. B. M. noct. 178. rurea Guén.—U. S.—Guén. noct. I, 137. C. B. M. noct. 178. indocilis Doubled.—N. Y.—C. B. M. noct. 179. libera Doubled.—N. Y.—C. B. M. noct. 179.

infixa Doubled.—Flor.—C. B. M. noct. 178. arcuata Doubled.—Flor.—C. B. M. noct. 178.

#### Thermesia Hübner.

gemmatilis Guén.—U. S.—Guén. noct. III, 355.

#### Marmotinia Guénée.

epionoides Guén.—Ga.—Guén noct. III. 371. geometrioides Guén.—N. Am.—Guén. noct. III, 371.

#### Letis Guénée.

specularis Hübn.—N. Am.—Hübn. exot. II. Guén. noct. III, 156.

#### Ercbus Latreille.

odora Drury.—Tex.—Drury I, 6, pl. 3. Guén. noct. III, 167. C. B. M. 1299.

# Phaeocyma Hübner.

unifera Hübn.—Ga.—Hübn. exot. I, 19, 49, f. 97. Guén. noct. III, 3. C. B. M. 1046.

# Homoptera Boisd.

lunata Drury.—U. S.—Drury I, 40, pl. 20. Guén. noct. III, 12. C. B. M. 1053.

exhausta Guén.—N. Am. ?—Guén. noct. III, 14. C. B. M. 1053.

edusa Drury.—U. S.—Drury (Westw.) II, 46, pl. 24. Guén. noct. III, 14. C. B. M. 1054. putrescens Guér. Icon. Règ. an. pl. 89.

minerea Guén.—U. S.—Guén. noct. III, 15. C. B. M. 1054. colycanthata Sm.—South.—Sm. Abb. II, 207, pl. 104. Guén. noct. III, involuta Doubled.—U. S.—C. B. M. 1055. [15. C. B. M. 1054.

involuta Doubled.—U. S.—C. B. M. 1055. plenipennis Doubled.—Flor.—C. B. M. 1055.

lineosa Doubled.—U. S.—C. B. M. 1056.

cingulifera Doubled.—Flor.—C. B. M. 1056.

declarans Doubled .- Flor .- C. B. M. 1057.

integerrima Doubled.—Flor.—C. B. M. 1057.

viridans Doubled.—Flor.—C. B. M. 1064.

obliqua Guén.—Can.—Guén. noct. III, 16. C. B. M. 1054.

terrosa Guén.—Mex.—Guén. noct. III, 11. C. B. M. 1058.

configurata Walk.—Mex.—C. B. M. 1058.

fuliginosa Doubled.—St. Dom.—C. B. M. 1059.

infausta Doubled.—St. Dom.—C. B. M. 1059.

gradata Doubled.—St. Dom.—C. B. M. 1060.

posterior Doubled.—Jam.—C. B. M. 1060.

terminalis Doubled.—St. Dom.—C. B. M. 1061.

directa Doubled.—St. Dom.—C. B. M. 1061.

humeralis Doubled.—St. Dom.—C. B. M. 1062.

## Clanyma Guénée.

angularis Hübn.—N. Am.—Hübn. Zutr. 9. Guén. noct. II, 95. asopialis Hübn.—N. Am.—Hübn. Zutr. 9. Guén. noct. II, 96.

# Ingura Guénée.

delineata Guén.—U. S.—Guén. noct. II, 311. C. B. M. noct. 875. abrostoloides Guén.—N. Am.—Guén. noct. II, 311. C. B. M. noct. 875. cristatrix Guén.—N. Am.?—Guén. noct. II, 313. C. B. M. noct. 875.

oculatrix Guén.—U. S.—Guén. noct. II, 313. C. B. M. noct. 875. arcigera Guén.—W. Ind.—Guén. noct. II, 310. C. B. M. noct. 876.

#### Placodes Boisd.

cinereola Guén.—N. Am.—Guén. noct. II, 316.

## Catocala Schrank.

parta Guén.—U. S.—Guén. noct. III, 84. C. B. M. noct. 1193. unijuga Doubled.-U. S.-C. B. M. 1194. amatrix Hübn.-U. S.-Hübn. Exot. II, f. 3. Guén. noct. III, 86. C. B. M. nurus Doubled.—U. S.—C. B. M. 1196. [1195. junctura Doubled.—U. S.—C. B. M. 1196. cara Doubled.—U. S.—C. B. M. 1196. selecta Doubled.-U. S.-C. B. M. 1197. ultronia Hübn.-U. S.-Hübn. exot. II, 26, f. 347. Guén. noct. III, 89. [C. B. M. 1197. concumbens Doubled.—N. Am.—C. B. M. 1198. ilia Cram.-U. S.-Cram. exot. I, 53, pl. 33. Guén. noct. III, 91. C. B. uxor Guén.—N. Am.—Guén. noct. III, 92. C. B. M. 1199. M. 1198. lachrymosa Guén.-U. S.-Guén. noct. III, 93. C. B. M. 1199. Vidua? Encyc. VIII, 288.

epione Drury.—N. Am.—Drury (Westw.) I, 43, pl. 23. F. E. Syst. III, 2, 163. Eneyc. VIII, 288. Guén. noct. III, 93. C. B. M. 1200. insolabilis Guén.—N. Am.—Guén. noct. III, 94. C. B. M. 1200. vidua Sm.—U. S.—Sm. Abb. II, 181, pl. 91. Guén. noct. III, 94. C. B. desperata Guén.—U. S.—Guén. noct. III, 95. C. B. M. 1201. [M. 1200. cerogama Guén.—N. Am.—Guén. noct. III, 96. C. B. M. 1202. neogama Sm.—N. Am.—Sm. Abb. II, 175, pl. 68. Nat. Libr. XXXVII, 202, pl. 26. Guén. noct. III, 96. C. B. M. 1202.

palaeogama Guén.—U. S.—Guén. noct. III, 97. C. B. M. 1202. muliercula Guén.—N. Am.—Guén. noct. III, 97. C. B. M. 1203. innubens Guén.—U. S.—Guén. noct. III, 98. C. B. M. 1203.

antinympha Hübn.—U. S.—Hübn. voz. 278. C. B. M. 1203. paranympha Drury (Westw.) I, 44, pl. 23. melanympha Guén. noct. III, 98.

consors Sm.—N. Am.—Sm. Abb II, 177, pl. 89. Encyc. VIII, 197. Guén. noct. III, 99. C. B. M. 1204.

micronympha Guén.—N. Am.—Guén. noct. III, 102. C. B. M. 1204.

amasia Sm.—N. Am.—Sm. Abb. II, pl. 90. Eneye. VIII, 290. Nat. Libr. XXXVII, 205, pl. 26. Guén. noct. III, 103. C. B. M. 1204.

grynea Cram.—Va.—Cram. exot. III, 29, pl. 208. C. B. M. 1205.

illecta Doubled.-U. S.-C. B. M. 1205.

nuptula Doubled .- N. Am. - C. B. M. 1205.

nuptialis Donbled.—U. S.—C. B. M. 1206.

polygama Gnén.—N. Am.—Gnén. noct. III, 105. C. B. M. 1207.

connubialis Guén.—N. Am.—Guén. noct. III, 105. C. B. M. 1207.

amica Hübu.—N. Am.—Hübu. exot. I, 14, f. 27. andrephila Guén. noct. III, 106. C. B. M. 1208.

messalina Guén.—N. Am.—Guén. noct. III, 107. C. B. M. 1209.

electilis Doubled.—Mex.—C. B. M. 1209.

relicta Doubled.—Nov. Scot.—C. B. M. 1193.

# Ophiusa Ochs.

Smithii Gn.—N. Am.—Guén. noct. III, 267.

similis Gn.—N. Am.—Guéu. noct. III, 267.

apicalis Gn.—N. Am.—Guén. noct. III, 267.

bistriaris Hübn.—N. Am.—Guén. noct. III, 268.

consobrina Hübn.—N. Am.—Guén. noct. III, 268.

atomarius Hübn.—Ga.—Hübn. exot. I, 16. C. B. M. 1321.

#### Acontia Ochs.

candefacta Hübn.—U. S.—Hübn. exot. III, 39, 294, f. 587. Guén. noct. II, 216. C. B. M. 784.

erastrioides Guén.-N. Am.-Guén. noct. II, 218. C. B. M. 784.

biplaga Guén.—U. S.—Guén. noct. II, 218. C. B. M. 785.

aprica Guén.—N. Am.—Guén. noct. II, 219. C. B. M. 785. ardoris Hübn.—Ga.—Hübn. exot. III, 34, f. 551. Guén. noct. II, 216. C.

ardoris Hübn.—Ga.—Hübn. exot. III, 34, f. 551. Guen. noct. II, 216. C. debilis Doubled.—Flor.—C. B. M. noct. 786. [B. M. 785.

margaritata Drury.—U. S.—Drury (Westw.), pl. 21.

## Agnomonia Hübner.

anilis Drur.—U. S.—Drur. (Westw.) II, 21, pl. 12. Guén. noct. III, 273. sesquistiaria Hübn.—U. S.—Hübn. Zutr. 419.

#### Bendis Hübner.

hinna Guén.-U. S.-Guén. noct. III, 216.

# Pseudophia Walk.

liburna Doubled.—N. Am.—C. B. M. 1364.

# Chamyris Guénée.

cerinthia Guén.—N. Y.—Guén. noct. II, 225. C. B. M. noct. 803.

#### Euclidia Ochs.

cuspidea Guén.—U. S.—Guén. noct. III, 292. C. B. M. 1361. capiticola Guén.—Rocky Mntns.—Guén. noct. III, 292. C. B. M. 1362. petricola Guén.—Rocky Mntns.—Guén. noct. III, 292. C. B. M. 1362.

#### Anomis Hübner.

fulvida Guén. noct. II, 397. C. B. M. 988. bipunctata Guén.—Ga.—Guén. noct. II, 401. C. B. M. 988. luridula Guén.—N. Am.—Guén. noct. II, 401. C. B. M. 988.

# Monogona Gnénée.

hormos Guén.—Ga.—Guén. noct. II, 403. C. B. M. noct. 995.

#### Siavana Walk.

repanda Doubled.-Flor.-C. B. M. 1009.

# Scoliopteryx Germar.

libatrix Linn.—N. Am., Eur.—Linn. Guén. noct. II, 405. C. B. M. 1011.

# Naenia Steph.

typica Doubled.-U. S., Eur.-C. B. M. 1020.

#### Anthoecia Boisd.

rivulosa Guén.—N. Am.—Guén. noct. II, 184. C. B. M. noct. 694. arcigera Guén.—N. Am.—Guén. noct. II, 184. C. B. M. noct. 694. jaguarina Guén.—N. Am.—Guén. noct. II, 184. C. B. M. noct. 694. lynx Guén.—N. Y.—Guén. noct. II, 185. C. B. M. noct. 694. tuberculum Hübn.—Pa.—Hübn. exot. III, 29, 259, f. 517. Guén. noct. II, 185. C. B. M. 695. bina Guén.—N. A.—Guén. noct. II, 186. C. B. M. noct. 695.

# Heliothis Ochs.

spinosa Doubled.—N. Am.—C. B. M. noct. 687. pyralis Hübn.—Ga.—Hübn. exot. I, 23, f. 127. C. B. M. noct. 687. exprimens Doubled.—Can.—C. B. M. noct. 687.

#### Famila Walker.

nundina Drur.—N. Y.—Drur. (Westw.) I, 35, pl. 18. C. B. M. noct. 679.

#### Rhodophora Guén. Alaria Westw.

florida Guén.—N. Y.—Guén. noct. II, 171. C. B. M. noct. 675. gaurae Hübn.—Ga.—Hübn. exot. III, 35, f. 557. Sm. Abb. II, 197, pl. 99. (Alaria) Duncan, Nat. Libr. XXXVII, 200, pl. 24. C. B. M. noct. 675

# Lepipolys Guénée.

perscripta Guén.—Flor.—Guén. II, noct. 174. C. B. M. noct. 677.

# Aspila Guénée. Chloridea Westw.

Rhexiae Sm.—Ga.—Sm. Abb. II, 199, pl. 100. Nat. Lib. XXXVII, 198, pl. 24. Gnén. noct. II, 175. C. B. M. noct. 678.
subflexa Guén.—N. Am.—Gnén. noct. II, 175. C. B. M. 678.
virescens Fab.—W. Ind.—Fab. Ent. Syst. III, 280, 72. Oliv. Encyc. VII, 269. Guén. noct. II, 175.

# Anarta Hübner.

impingens Doubled.—Rocky Mtns.—C. B. M. noet. 700. Richardsoni Doubled.—Arc. Am.—C. B. M. noet. 700. septentrionis Doubled.—Arc. Am.—C. B. M. noet. 700. constricta Doubled.—Arc. Am.—C. B. M. noet. 701.

# Eriopus Treitsch. Callopistria Hübner.

floridensis Guén.—Flor.—Guén. noct. II, 293. C. B. M. noct. 863. mollissima Guén.—Flor.—Guén. noct. II, 294. C. B. M. noct. 863. granitosa Guén.—N. Am.—Guén. noct. II, 295. C. B. M. noct. 863. argentilinea Doubled.—N. Am.—C. B. M. 863.

# Lepidomys Guénée.

irrenosa Guén.—N. Y.—Guén. noct. II, 202. C. B. M. noct. 767.

# Derrima Walker.

stellata Doubled .- U. S.-C. B. M. 770.

## Agrophila Boisd.

leo Guén.—N. Am.—Guén. noct. II, 205. C. B. M. noct. 773. dama Guén.—N. Am.—Guén. noct. II, 205. C. B. M. noct. 774. onagrus Guén.—U. S.—Guén. noct. II, 205. C. B. M. noct. 774.

#### Abrostola Ochs.

urentis Guén.—U. S.—Guén. noct. II, 322. C. B. M. noct. 883. ovalis Guén.—N. Y.—Guén. noct. II, 322. C. B. M. noct. 883.

# Calyptis Guénée.

iter Guén.—N. Am.?—Guén. noct. II, 324. C. B. M. noct. 885.

# Plusia Ochs.

aerea Hübn.—U. S.—Hübn. Eur. Schmet. pl. 56, f. 271. Guén. noct. 11, 333. C. B. M. noct. 890.

festucae Albin.—N. Am., Eur.—Albin. Guén. noct. II, 337. C. B. M. noct. 894.

mya Hübn.—Can., Eur.—Hübn. Guén. noct. II, 338. C. B. M. noct. 895. balluca Geyer.—N. Am.—Geyer, exot. 22, 241, f. 681. Guén. noct. II, 334. C. B. M. 904.

thyatyroides Guén.—N. Y.—Guén. noct. II, 337. C. B. M. noct. 905. U-brevis Guén.—U. S.—Guén. noct. II, 341. C. B. M. noct. 905. biloba Guén.—Flor.—Guén. noct. II, 341. C. B. M. noct. 906.

verruca Fab.—U. S.—F. E. S. III, 2. Encyc. 315. Guén. noct. II, 342. C. B. M. 906. omega Hbnr. Zut. f. 373. omicron Hbnr. Verzeichn.

251.
rogationis Guén.—N. Am.—Guén. noct. II, 354. C. B. M. noct. 906.
precationis Guén.—N. Am.—Guén. noct. II, 344. C. B. M. noct. 906.
simplex Guén.—N. Am.—Guén. noct. II, 346. C. B. M. noct. 907.
ou Guén.—Flor.—Guén. noct. II, 348. C. B. M. noct. 907.
oxygramma Guén.—Ga.—Guén. noct. II, 350. C. B. M. noct. 908.
falcigera? Kirby.—Can.—Kirby Faun. Bor. IV, 306. C. B. M. noct. 908
falgellum Doubled.—N. Am.—C. B. M. noct. 909.
indegna Doubled.—Ga.—C. B. M. noct. 909.
mortuorum Guén.—Can.—Guén. noct. II, 353. C. B. M. noct. 910.
ampla Doubled.—Can.—C. B. M. noct. 910.
quadriplaga Doubled.—Va.—C. B. M. noct. 911. iota? Cram. exot. II, 100, pl. 165.

selecta Doubled.—Hud. Bay.—C. B. M. 912.
alticola Doubled.—Rocky Mtns.—C. B. M. 912.
secedens Doubled.—Hud. Bay.—C. B. M. 913.
falcifera Guén.—W. Ind.—Guén. noct. II, 328. C. B. M. 913.
egena Guén.—St. Dom.—Guén. noct. II, 328. C. B. M. 914.
includens Doubled.—St. Dom.—C. B. M. 914.
calceolaris Doubled.—St. Dom.—C. B. M. 914.
humilis Doubled.—St. Dom.—C. B. M. 915.

# Basilodes Guénée.

pepita Guén.—Flor.—Guén. noct. II, 358. C. B. M. noct. 936.

#### Hemicera Guén.

cadmia Guén.—N. Am.—Guén. noct. II, 383. ampla Doubled.—Can.—C. B. M. noct. 910.

#### Erastria Ochs.

cameola Guén.—U. S.—Guén. noct. II, 228. C. B. M. noct. 807. nigritula Guén.—Flor.—Guén. noct. II, 229. C. B. M. noct. 807. musculosa Guén.—N. Y.—Guén. noct. II, 230. C. B. M. noct. 807. albidula Guén.—U. S.—Guén. noct. II, 230. C. B. M. noct. 807. rubicunda Doubled.—N. Y.—C. B. M. noct. 808. inscripta Doubled.—U. S.—C. B. M. noct. 808. varia Doubled.—Florida.—C. B. M. noct. 808. biplaga Doubled.—Illinois.—C. B. M. noct. 808.

Banklit Guénée. Erastria Ochs. Anthophila Boisd. olivula Guén.—N. Am.—Guén. noct. II, 231.

Leptosia Guénée. Bryophila Treitsch. Anthophila Treitsch. concinnimacula Guén.—N. Y.—Guén. noct. II, 238. C. B. M. noct. 816.

# Galgula Guénée.

partita Guén.—Flor.—Guén. noct. II, 239. C. B. M. noct. 817. hepara Guén.—N. A.—Guén. noct. II, 239. C. B. M. noct. 817.

#### Xanthoptera Guénée.

nigrofimbria Guén.—N. Am.—Guén. noct. II, 241. C. B. M. noct. 818. semiflava Guén.—U. S.—Guén. noct. II, 241. C. B. M. noct. 818. semiocrea Guén.—Ga.—Guén. noct. II, 241. C. B. M. noct. 818.

#### Micra Guénée.

minima Guén.—U. S.—Guén. noct. II, 246. C. B. M. noct. 823.

# Microphysa Boisd. Ophiusa Treitsch.

sobria Doubled.-U. S.-C. B. M. noct. 835.

# Chariptera Guénée. Polia Boisd.

festa Guén.—Carolina.—Guén. noct. II, 57. C. B. M. noct. 535.

# Raphia Hbnr.

ononycha Guén.—N. Am.—Guén. noct. II, 48. C. B. M. noct. 528. propulsa Doubled.—Flor.—C. B. M. noct. 539.

#### Mecalera Guénée.

laudabilis Guén.—Flor.—Guén. noct. III, 30. C. B. M. noct. 511.

#### Phlogophora Ochs.

anodonta Guén.—N. Y.—Guén. noct. II, 63. C. B. M. noct. 541. iris Guén.—N. Y.—Guén. noct. II, 64. C. B. M. noct. 542. periculosa Doubled.—N. Y.—C. B. M. noct. 542.

# Emplexia Steph.

lucipara Linn.—N. Y., Eur.—Linn. Guén. noct. II, 68. C. B. M. noct. 543.

# Polyphaenis Boisd. Polia Ochs.

herbacea Guén.—N. Am.—Guén. noct. II, 73. C. B. M. noct. 549.

# Eurois Hübn. Polia Treitsch. Aplecta Guénée.

herbida Den. & Schieff.—N. A., Eur.—Den. & Schieff. Guén. noct. II, 75. C. B. M. noct. 550. occulta Guén.—Can., Eur.—Guén. noct. II, 76. C. B. M. noct. 551. imbrifera Guén.—Can.—Guén. noct. II, 77. C. B. M. noct. 555. nimbosa Guén.—N. Y.—Guén. noct. II, 77. C. B. M. noct. 555. Iatex Guén.—N. Y.—Guén. noct. II, 78. C. B. M. noct. 556.

condita Guén.—N. Y.—Guén. noct. II, 78. C. B. M. noct. 556.

## Hadena Ochs. Polia Treitsch.

miseloides Guén.-N. Am.-Guén. noct. II, 89. C. B. M. noct. 582. distincta Guén.—N. Am.—Guén. noct. II, 91. C. B. M. noct. 583. chenopodii Guén.-N. Am.-Guén. noct. II, 89. W-latinum Guén.—N. A., Eur.—Guén. noct. II, 105. C. B. M. noct. 578. grandis Guén.—N. Y.—Guén. noct. II, 105. C. B. M. noct. 578. xylinoides Guén.—N. Y.—Guén. noct. II, 106. C. B. M. noct. 584. bellicula Hübn.—Ga.—Hübn. exot. I, 18, 43, f. 85. C. B. M. noet. 583. pisi Linn.—N. A., Eur.—Linn. Guén. noct. II, 101. C. B. M. noct. 575. rectilinea Esper.—N. A., Eur.—Esper. Guén. noct. II, 105. C. B. M. intracta Doubled .-- Are, Am. -- C. B. M. noct. 584. [noct. 579. insignis Doubled.—Jam.—C. B. M. noct. 585. punctirena Doubled.—St. Dom.—C. B. M. noct. 586. detracta Doubled .- N. Y.-C. B. M. noct. 732. albifusa Doubled .- Nov. Scot. - C. B. M. noct. 732. contenta Doubled.—Can.—C. B. M. noct. 732. amputatrix Fitch.—N. Y.—Tr. N. Y. Agr. Soc. XVI, 425.

#### Cassandria Walk.

emittens Doubled.-Jam.-C. B. M. noct. 606.

## Epunda Dup.

onychina Guén.—N. Am.—Guén. noct. II, 48.

#### Calocampa Hbnr.

vetusta Hübn.-N. Am.-Hübn. Europ. Schmet. pl. 97.

#### Nephelodes Guénée.

violans Guén.—N. Y.—Guén. noet. I, 130. C. B. M. noet. 163. ? emmedonia Cram.—Va.—Cram. exot. III, 92, pl. 247. C. B. M. noet. minians Guén.—Can.—Guén. noet. I, 130. C. B. M. noet. 163. [163.

# Scoliocampa Guénée.

ligni Guén.—Ga.—Guén. noct. I, 131. C. B. M. noct. 166.

#### Achatodes Guénée.

sandix Guén.-U. S.-Guén. noct. I, 132. C. B. M. 166.

# Xylomyges Guénée. Xylina Treitsch.

phytolaccae Sm.—South. St.—Sm. Abb. II, 193, pl. 97. C. B. M. noct. 183. eridania Cram. exot. IV, 13, pl. 358. sunia Guén.—St. Thomas.—Guén. noct. I, 149. C. B. M. 183. putrida Guén.—Guadaloupe.—Guén. noct. I, 148. C. B. M. 183.

# Laphrygma Guénée.

frugiperda Sm.—N. Am.—Sm. Abb. II, 191, pl. 96. Guén. noct. I, 159. unisignata Doubled.—Flor.—C. B. M. noct. 189. [C. B. M. 189. arcuata Doubled.—Flor.—C. B. M. noct. 718. vitrina Doubled.—St. Dom.—C. B. M. noct. 719. orbicularis Doubled.—St. Dom.—C. B. M. noct. 719. ferrocana Doubled.—Jam.—C. B. M. noct. 720.

## Prodenia Guénée. Hadena Boisd.

commelinae Sm.—Ga.—Sm. Abb. II, 189, pl. 95. Guén. noct. I, 162. C. B. M. noct. 193. ornithogalli Guén.—N. Am.—Guén. noct. I, 163. C. B. M. noct. 193. eudiopta Guén.—N. Am.?—Guén. noct. I, 164. C. B. M. noct. 193. signifera Doubled.—Ga.—C. B. M. 193. plagiata Doubled.—Jam.—C. B. M. 144. latifascia Doubled.—Jam.—C. B. M. 145.

## Heliophobus Guénée.

fimbriaris Guén.—U. S.—Guén. noct. I, 172. C. B. M. noct. 208.

#### Crymodes Guénée.

borea Guén.—Arc. Am.—Guén. noct. I, 186. C. B. M. noct. 219. exulis Guén.—Labr.—Guén. noct. I, 185. C. B. M. noct. 219. gelida Guén.—Labr.—Guén. noct. I, 186 C. B. M. noct. 221. gelata Guén.—Labr.—Guén. noct. I, 186. C. B. M. noct. 221.

#### Miana Walk.

undulifera Doubled.—Flor.—C. B. M. noct. 258. vincta Doubled.—Flor.—C. B. M. noct. 730.

#### Celaena Steph.

festivoides Guén.—Flor.—Guén. noct. I, 220. C. B. M. noct. 261. chalcedonia Guén.—N. Am.—Guén. noct. I, 221. C. B. M. noct. 262. arna Guén.—Flor.—Guén. noct. I, 222. C. B. M. noct. 262. herbimacula Guén.—U. S.—Guén. noct. I, 223. C. B. M. noct. 262. exesa Doubled.—Flor.—C. B. M. 262. punctifera Doubled.—U. S.—C. B. M. 263. infecta Doubled.—Illin.—C. B. M. 263. irresoluta Doubled.—Flor.—C. B. M. 731.

deliriosa Doubled.—St. Dom.—C. B. M. 731. agrotina Guén.—Cuba.—Guén. noct. I, 221. inclinata Walk.—St. Dom.—C. B. M. noct. 732. semifurca Walk.—St. Dom.—C. B. M. noct. 732. prolifera Walk.—St. Dom.—C. B. M. noct. 732.

# Perigea Guénée.

xanthioides Guén.—Flor.—Guén. noct. I, 227. C. B. M. noct. 271. infelix Guén.—Flor.—Guén. noct. I, 229. C. B. M. noct. 271. vecors Guén.—Flor.—Guén. noct. I, 231. C. B. M. noct. 271. circuita Guén.—St. Thos.—Guén. noct. I, 227. C. B. M. noct. 272. apameoides Guén.—St. Thos.—Guén. noct. I, 220. C. B. M. noct. 273. abstemia Guén.—Mex.—Guén. noct. I, 231.

#### Monodes Guénée.

nucicolora Guén.—Flor.—Guén. noct. I, 241. C. B. M. noct. 284.

#### Caradrina Ochs.

tarda Guén.—N. Am.—Guén. noct. I, 243. C. B. M. noct. 292.

# Xylina Ochs.

contraria Doubled.—U. S.—C. B. M. noct. 627. infructuosa Doubled.—Flor.—C. B. M. noct. 627. signosa Doubled.—North. St.—C. B. M. noct. 627. multifaria Doubled.—U. S.—C. B. M. noct. 628. commoda Doubled.—Flor.—C. B. M. noct. 760. claufacta Doubled.—Flor.—C. B. M. noct. 760. orbifera Doubled.—St. Dom.—C. B. M. noct. 760.

#### Hapalia Hbnr. Agrotis Guénée.

indicans Doubled.—Flor.—C. B. M. noct. 359.

**Spaciotes** Boisd. **Agrotis** Ochs. **Caradrina** Herr. Schaef. ravida Doubled.—N. Y.—C. B. M. noct. 364. pyrophila Guén.—Nov. Scot.—Guén. noct. I, 301. C. B. M. noct. 365.

# Graphiphora Ochs. Noctua Lin. Agrotis, Polia, Orthosia Herr. Schaef.

C-nigrum Auet.—U.S., Eur.—Auet. Guén. noet. I, 328. C. B. M. noet. 389. triangulum Guén.—N. Y., Eur.—Guén. noet. I, 329. C. B. M. noet. 390. Dahlii Guén.—U. S., Eur.—Guéu. noet. 332. C. B. M. noet. 393. lubricans Guén.—Flor.—Guén. noet. 323. C. B. M. noet. 398. jucanda Doubled.—Can.—C. B. M. noet. 399. expansa Doubled.—Can.—C. B. M. noet. 399. sigmoides Guén.—N. Y.—Guén. noet. I, 325. C. B. M. noet. 400. augur Fabr.—U.S., Eur.—Fabr. Guén. noet. I, 325. C. B. M. noet. 387.

baja Gmel.—N. Y., Eur.—Gmel. Guén. noct. I, 335. C. B. M. noct. 396. bicarnea Guén.—N. Y.—Guén. noct. I, 329. C. B. M. noct. 400. elimata Guén.—Ga.—Guén. noct. I, 333. C. B. M. noct. 400.

#### Orthosia Ochsenheimer.

instabilis Schiffm.—N. Y.—Fitch, Tr. N. Y. Agr. Soc. XVI, 343.

## Ochropleura Hübner.

ochrogaster Guén.—N. Am.—Guén. noct. I, 327. C. B. M. noct. 408.

#### Ceramica Guénée.

exusta Guén.—N. Y.—Guén. noct. I, 344. C. B. M. noct. 417. vindemialis Guén.—Flor.—Guén. noct. I, 344. C. B. M. noct. 417. V-album Guén.—Flor.—Guén. noct. I, 345. C. B. M. noct. 418.

## Taeniocampa Guénée. Orthosia, Cerastis Ochs., Treitsch. Herr. Schaef.

alia Guén.—N. Y.—Guén. noct. I, 352. C. B. M. noct. 429. hibisci Guén.—N. Y.—Guén. noct. I, 355. C. B. M. noct. 429. oviduca Guén.—N. Am.—Guén. noct. I, 357. C. B. M. noct. 429. styracis Guén.—Ga.—Guén. noct. I, 357. C. B. M. noct. 430. collinita Guén.—N. Am.—Guén. noct. I, 351.

#### Cerastis Ochs.

anchocelioides Guén.—N. Y.—Guén. I, noct. 384. C. B. M. 452. adulta Guén.—N. Y.—Guén. II, noct. 393.

#### Scopolosoma Curtis.

sidus Guén. noct. I, 386.

#### Hoporina Guénée.

hesperidago.—Guén. noct. I, 386.

#### Xestia IIbn. Xanthia Ochs., Herr. Schaeff.

chloropha Hbnr.—Ga.—Hbnr. exot. IV, pl. 304. Herr. Schaeff. Schmet. Eur. II, 201, pl. 23. C. B. M. noet. 470.

## Cucullia Ochs., Auct.

asteroides Guén.—N. Y.—Guén. noct. II, 133. C. B. M. noct. 656.
postera Guén.—North. St.—Guén. noct. II, 133. C. B. M. noct. 656.
florea Guén.—N. Y.—Guén. noct. II, 134. C. B. M. noct. 656.
chamomillae Fab.—N. Y., Eur.—Fab. Guén. noct. II, 142. C. B. M. noct. 650.

## Amphipyra Ochs.

pyramidoides Guén.—U. S.—Guén. noct. II, 413. C. B. M. noct. 1018. ? turbulenta Hübn.—Ga.—Hübn. exot. I, 15, 34, f. 67—8.

#### Crambodes Guénée.

talidiformis Guén.—U. S.—Guén. noct. II, 152. C. B. M. noct. 661.

## Oria Geyer.

sanguinea Geyer.—N. Am.—Geyer. exot. IV, 9, 307, f. 613. Guén. noct. II, 167. C. B. M. 672.

## Agrotis Ochs.

spissa Guén.-U. S.-Guén. noct. I, 261. C. B. M. noct. 327. jaculifera Guén.—N. Y.—Guén. noct. I, 262. C. B. M. noct. 327. malefida Guén.—N. Am.—Guén. noct. I, 267. C. B. M. noct. 328. suffusa Den. & Schieff.—U. S., Eur., Asia.—Guén. noct. I, 268. C. B. M. noct. 309. incivis Guén.—Flor.—Guén. noct. I, 274. C. B. M. noct. 331. tritici Linn.-U. S.-Linn. Guén. noct. I, 288. C. B. M. 321. obeliscoides Guén.-U. S.-Guén. noct. I, 293. C. B. M. 331. ravida Den. & Schieff-U. S. Eur.-Den. & Schieff. Guén. noct. I, 300. telifera Harr.-U. S.-Ins. Mass. 323. inermis Harr.-U. S.-Ins. Mass. 323. messoria Harr.—U. S.—Ins. Mass. 324. tesselata Harr.-U. S.-Ins. Mass. 324. clandestina Harr.-U. S.-Ins. Mass. 327. devastator Harr.-U. S.-Ins. Mass. 324. annexa Treitsch.-U. S.-Guén. noct. I, 268. C. B. M. noct. 328. patula Doubled.—Rocky Mtns.—C. B. M. noct. 329. haesitans Doubled.-U. S.-C. B. M. noct. 329. incallida Doubled.—U. S.—C. B. M. noct. 330. perlentans Doubled.—N. Y.—C. B. M. noct. 332. finnica Guén.—N. Y.—Guén. noct. I, 270. C. B. M. noct. 311. venerabilis Doubled.—Nov. Scot.—C. B. M. noct. 328. orophila Hübn.—Mex.—Hübn. exot. V, 7, 405. C. B. M. noct. 736. imperita Hübn.—Labr.—Hübn. exot. III, 16, 221. C. B. M. noct. 333. decernens Doubled.—St. Dom.—C. B. M. noct. 333. radix Doubled.—Nov. Scot.—C. B. M. noct. 332. mollis Doubled.—Nov. Scot.—C. B. M. noct. 331. divergens Doubled.—Nov. Scot.—C. B. M. noct. 327. repleta Doubled.—Mex.—C. B. M. noct. 736. emittens Doubled.—Mex.—C. B. M. noct. 737. subterranea Fab.—St. Thos.—Guén. noct. I, 268.

#### Ypsia Guénée.

aeruginosa Guén.—N. Am.—Guén. noct. III, 17. C. B. M. noct. 1074. undularis Guén.—N. Y.—Guén. noct. III, 18. C. B. M. noct. 1074.

#### Anthracia Hbnr.

squamularis Drury.—N. Am.—Drury II, 18, pl. 9. coracias Guén.—Ga.—Guén. noct. III, 19. C. B. M. noct. 1075. cornix Guén.—N. Am.—Guén. noct. III, 19. C. B. M. noct. 1075.

## Campometra Guénée.

amella Guén.—N. Am.—Guén. noct. III, 25.

## Hypogramma Guénée.

andromedae Guén.—Ga.—Guén. noct. III, 36. C. B. M. noct. 1095.

## Lophoptera? Guénée.

pygmaea Hübn.—Ga.—Hübn. exot. I, 21, 55, f. 109. C. B. M. 1133.

## Allotria Hübner.

elonympha Guén.—U. S.—Guén. noct. III, 37. Hbnr. Zutr. 11, f. 29.

## Panula Guénée.

inconstans Guén.—N. Am.—Guén. noct. III, 59. C. B. M. 1144. remigipila Guén.—Flor.—Guén. noct. III, 60. C. B. M. 1144.

## **Rolina** Dup. jucunda Hübn. exot. I, 17, 41, f. 81. *cinis* Guén. noct. HI, 62. C. B. M.

limitaris Guén.—Mex.—Guén. noct. III, 70. C. B. M. 1440. T1145. nigrobasis Guén.—Mex.—Guén. noct. III, 65. C. B. M. 1146. fasciolaris Hübn.—St. Dom.—Hübn. exot. III, 15, 223, f. 443. fascicularis Guén, noct. III, 63. C. B. M. 1147. januaris Guén.—Hayti.—Guén. noct. III, 67. C. B. M. 1149. russaris Guén.—St. Dom.—Guén. noct. III, 69. C. B. M. 1149. cunearis Guén.—Cuba.—Guén. noct. III, 70. C. B. M. 1150. novanda Guén.—Jam.—Guén. noct. III, 64. C. B. M. 1150. perpendicularis Guén.—Jam.—Guén. noct. III, 65. C. B. M. 1151. heliothoides Guén.—St. Dom.—Guén. noct. III, 68. C. B. M. 1151. ochrodes Guén.—St. Dom.—Guén. noct. III, 64. C. B. M. 1151. terminifera Doubled.—St. Dom.—C. B. M. 1151. lucigera Doubled.—St. Dom.—C. B. M. 1152. strigifera Doubled.—St. Dom.—C. B. M. 1152. glaucipennis Doubled.—St. Dom.—C. B. M. 1153. parens Doubled.—St. Dom.—C. B. M. 1154. excavans Doubled.—St. Dom.—C. B. M. 1154. bistriga Doubled.—St. Dom.—C. B. M. 1155. bivittata Doubled.—St. Dom.—C. B. M. 1156. subtilis Doubled.—St. Dom.—C. B. M. 1156. confirmans Doubled .- St. Dom .- C. B. M. 1157. umbrosa Doubled.—St. Dom.—C. B. M. 1158.

#### Syneda Guénée.

limbolaris Geyer.—Ga.—Geyer Zutr. 23, 345, f. 689. Guén. noct. III, 71. C. B. M. 1168.

graphica Hübn.—Ga.—Hübn. exot. I, 8, 6, f. 11. Guén. noct. III, 71. C. B. M. 1168.

## Parthenos Hbnr.

nubilis Hübn.-U. S.-Hübn. exot. II, f. 3. Guén. noct. III, 80. C. B. M. 1179.

#### Drasteria Hbnr.

convalescens Guén.—N. Am.—Guén. noct. III, 289. erechthea Guén.—U. S.—Guén. noct. III, 289. erichto Guén.—N. Am.—Guén. noct. III, 289. ? horrida Hübn.—Ga.—Hübn. Zutr. I, 11, 16, f. 3. C. B. M. 1357.

## Lyssia Guénée.

orthosioides Guén.—U. S.—Guén. noct. III, 296.

## Poaphila Guénée.

deleta Guén.—N. Am.—Guén. noct. III, 300. C. B. M. 1369.

sylvarum Guén.—N. Am.—Guén. noct. III, 300. C. B. M. 1369. quadrifilaris Hübn.-U. S.-Hübn. exot. 37, f. 569. Guén. noct. III, 300. C. B. M. 1369. erasa Guén.-N. Am.-Guén. noct. III, 301. C. B. M. 1370. herbicola Guén.—N. Am.—Guén. noct. III, 302. C. B. M. 1370. contempta Guén.-N. Am.-Guén. noct. III, 302. flavistriaris Hübn.—N. Am.—Hübn. Zutr. f. 555. Guén. noct. III, 302. perplexa Hübn.—N. Am.—Hübn. Zutr. f. 555. Guén. noct. III, 302. C. B. M. 1371.

bistrigata Hübn.-U. S.-Hübn. Zutr. III. Guén. noct. III, 303. C. B. M. 1371.

herbarum Guén.—N. Y.—Guén. noct. III, 303. C. B. M. 1371. patibilis Doubled.-U. S.-C. B. M. 1372.

revoluta Doubled.-U. S.-C. B. M. 1372.

ingenua Doubled.-U. S.-C. B. M. 1373.

obversa Doubled.—Ga.—C. B. M. 1373. amplissima Doubled.—Flor.—C. B. M. 1374.

porrigens Doubled.—Flor.—C. B. M. 1374.

narrata Doubled.—Flor.—C. B. M. 1375.

pacalis Guén.—Flor.—Guén. noct. III, 305. C. B. M. 1375.

#### Phurys Guénée.

vinculum Guén.—Flor.—Guén. noct. III, 305. C. B. M. 1375. Iima Guén.—Flor.—Guén. noct. III, 305. perlata Guén.—N. Am.?—Guén. noct. III, 305. C. B. M. 1380.

## Caemurgia Guénée.

purgata Doubled.—Flor.—C. B. M. 1380.

## Caliptera Guéneé.

frustulum Guén.-U. S.-Guén. noct. III, 308.

## Isogona Guénée.

natatrix Guén.-U. S.-Guén. noct. III, 323.

## Remigia Guénée.

marcida Guén.—N. Am.—Guén. noct. III, 317. C. B. M. 1495. disseverans Guén.—Flor.—Guén. noct. III, 324. C. B. M. 1495.

## Panopoda Guénée.

rubricosta Guén.—N. Am.—Guén. noct. III, 324. roseicosta Guén.—N. Am.—Guén. noct. III, 325. carneicosta Guén.—U. S.—Guén. noct. III, 325. rufimargo Hübn.—U. S.—IIübn. exot. I, 13.

### Marmorinia Guénée.

epionoides Guén.—Ga.—Guén. noct. III, 371. geometrioides Guén.—Ga.—Guén. noct. III, 371.

## Div. DELTOIDES Latr.

## Hypena Schrank.

baltimoralis Guén.—U. S.—Guén. noct. IV, 34. madefactalis Guén.—U. S.—Guén. noct. IV, 35. scabralis Fabr.—N. Am.—Guén. noct. IV, 40. erectalis Guén.—Pa.—Guén. noct. IV, 40. edictalis Doubled.—U. S.—C. B. M. pt. 16, 1858, 28. generalis Doubled.—Phila.—C. B. M. pt. 16, 1858, 29. abalienalis Doubled.—N. Y.—C. B. M. pt. 16, 1858, 31. manalis Doubled.—U. S.—C. B. M. pt. 16, 1858, 33. deceptalis Doubled.—N. Y.—C. B. M. pt. 16, 1858, 30. eductalis Doubled.—U. S.—C. B. M. pt. 16, 1858, 35. factiosalis Doubled.—U. S.—C. B. M. pt. 16, 1858, 37. fallacialis Doubled.—U. S.—C. B. M. pt. 16, 1858, 37. habitalis Doubled.—U. S.—C. B. M. pt. 16, 1858, 39.

## Rivula Guénée.

propinqualis Guén.—N. Am.—Guén. noct. IV, 49.

#### HICHMANNIA Latr.

morbidalis Guén.—N. Am.—Guén. noct. IV, 56. pedipilalis Guén.—N. Am.—Guén. noct. IV, 57. cruralis Guén.—N. Am.—Guén. noct. IV, 58. jacchusalis Doubled.—U. S.—C. B. M. (pt. 16, 1858) 104. protumnusalis Doubled.—U. S.—C. B. M. (pt. 16, 1858) 104. eumelusalis Doubled.—U. S.—C. B. M. (pt. 16, 1858) 105.

cloniosalis Doubled.—U. S.—C. B. M. (pt. 16, 1858) 105. pyramusalis Doubled.—U. S.—C. B. M. (pt. 16, 1858) 106. phalerosalis Doubled.—U. S.—C. B. M. (pt. 16, 1858) 107. salusalis Doubled.—U. S.—C. B. M. (pt. 16, 1858) 107. heliusalis Doubled.—U. S.—C. B. M. (pt. 16, 1858) 108. clitoralis Doubled.—U. S.—C. B. M. (pt. 16, 1858) 108. thrasalis Doubled.—U. S.—C. B. M. (pt. 16, 1858) 109.

## Bleptina Guénée.

caradrinalis Guén.—N. Am.—Guén. noct. IV, 67. suviectalis Doubled.—C. B. M. (pt. 16, 1858), 241.

## Helia Guénée. Pyralis Treitsch.

phaealis Guén.—N. Am.—Guén. noct. IV, 76. americalis Guén.—N. Am.—Guén. noct. IV, 78. aemularis Guén.—N. Am.—Guén. noct. IV, 78. lituralis Guén.—Ga.—Guén. noct. IV, 78.

#### Renia Guénée.

discoloralis Guén.-N. Am.-Guén. noct. IV, 82.

## Clanyma Guénée.

angularis Hübn.—N. Am.—Hübn. Samml. 107. Guén. noct. IV, 95. asopialis Guén.—N. Am.—Guén. noct. IV, 96.

#### Hormisa Walk.

absorptalis Doubled.—U. S.—C. B. M. (pt. 16, 1858) 74.

#### Fam. PYRALIDAE Guénée.

## Phacellura Guilding, (Hald., emend.)

hyalinatalis Linn.—Jam.—Walk. B. M. C. Pyral. 510. immaculalis Guén.—U. S.—Guén. Delt. et Pyral. 297, 303. nitidalis Gram.—U. S.—Cram. Pap. Exot. IV, 160. B. M. C. Pyral. 511.

#### Pyralis Linn.

olinalis Guén.—N. Am.?—Guén. noct. IV, 118. farinalis Harr.—U. S.—Ins. Mass., 2d ed. 371. decoralis Hübn.—U. S.—Hübn. Zutr. 18, fig. 91. octralis Hübn.—U. S.—Hübn. Zutr. 18, fig. 95. pussilalis Hübn.—U. S.—Hübn. Zutr. 28, fig. 167. nummulalis Hübn.—U. S.—Hübn. Zutr. fig. 185. perstrialis Hübn.—U. S.—Hübn. Zutr. fig. 457. pantheralis Hübn.—U. S.—Hübn. Zutr. fig. 673. bistrialis Hübn.—U. S.—Hübn. Zutr. fig. 775.

#### Aglossa Latr.

domalis Guén.—N. Am.—Guén. noct. IV, 128. pinguinalis Harr.—U. S.—Ins. Mass. 343, 2d ed. 371.

Rhodaria Guénée. Botys Herr. Schaef. phoenicialis Hübn.—N. Am.—Hübn. Zutr. 115. Guén. noct. IV, 173.

Merbula Guénée. Botys Herr. Schaef.

subsequalis Guén.—N. Am.—Guén. noct. IV, 177.

#### Desmia Westw.

maculalis Westw.—N. Am.—Mag. de Zool. 1832, pl. 2. Guén. noct. IV, 189.

(Westw. cites Botys bicolor (Swains. Zool. III, 77) as the probable Q of this species.)

#### Samea Gnénée.

ecclesialis Guén.—N. Am.—Guén. noct. IV, 194. castellalis Guén.—N. Am.—Guén. noct. IV, 195. ebulealis Guén.—N. Am.—Guén. noct. IV, 196. huronalis Guén.—Canada.—Guén. noct. IV, 198.

## Asopia Treitsch.

bicoloralis Guén.—N. Am.—Guén. noct. IV, 205.

#### Hyalea Guénée.

dividalis Hübn.-U. S.-Hübn. Zutr. 779. Guén. noct. 1V, 207.

#### Agathodes Guénée.

monstralis Guén.—N. Am.—Guén. noct. IV, 209. designalis Guén.—N. Am.—Guén. noct. IV, 209.

#### Isopteryx Guénée.

aplicalis Guén.—N. Am.—Guén. noct. IV, 229. magualis Guén.—N. Am.—Guén. noct. IV, 230. stenialis Guén.—N. Am.—Guén. noct. IV, 231.

#### Stenia Guénée.

ranalis Guén.—N. Am.—Guén. noct. IV, 243.

### Parthenodes Guénée.

xantholeucalis Guén.—Ga.—Guén. noct. IV, 253.

## Spilomela Guénée.

platinalis Guén.-Missouri.-Guén. noct. IV, 282.

#### Clinioides Guénée.

opalalis Guén.—N. Am.—Guén. noct. IV, 301. B. M. C. Pyral. 518.

Margaronia Hübn. Margarodes Guénée. quadristigmalis Guén.—N. Am.—Guén. noct. IV, 304.

## Doryodes Walk.

acutalis Doubled.-U. S.-C. B. M. (pt. 16, 1858) 73.

## Botys Latr.

ponderalis Guén.—N. Am. ?—Guén. noct. IV, 328. C. B. M. Pyral. 561. oxydalis Guén.—N. Am.—Guén. noct. IV, 328. C. B. M. Pyral. 561. flavidalis Guén.—N. Am.?—Guén. noet. IV, 329. C. B. M. Pyral. 562. extricalis Guén.—N. Am. ?—Guén. noct. IV, 338. C. B. M. Pyral. 562. argyralis Hübn.-N. Am.-Hübn. Zutr. 113. Guén. noct. IV, 341. theseusalis Walk.—U. S.—C. B. M. Pyral. 562. siriusalis Walk.—U. S.—C. B. M. Pyral. 563. licealis Walk.—U. S.—C. B. M. Pyral. 563. mysippusalis Walk.—U. S.—C. B. M. Pyral. 564. periusalis Walk.—U. S.—C. B. M. Pyral. 564. arsaltealis Walk.—U. S.—C. B. M. Pyral. 564. thymetusalis Walk.—U. S.—C. B. M. Pyral. 565. æglealis Walk.-U. S.-C. B. M. Pyral, 565. scyllaris Walk.—Mex.—C. B. M. Pyral. 566. œdipodalis Guén.-W. I.-C. B. M. Pyral. 569. xanthialis Guén.—Cuba.—C. B. M. Pyral. 569. campalis Guén.—W. I.—C. B. M. Pyral. 570. cubanalis Guén.—Cuba.—C. B. M. Pyral. 570. gastralis Guén.—Haiti.—C. B. M. Pyral. 570. marialis Poey.—Cuba.—C. B. M. Pyral. 571. vecordalis Guén.—Haiti.—C. B. M. Pyral. 571. delimitalis Guén.—Haiti.—C. B. M. Pyral. 571. ostrealis Guén.-W. I.-C. B. M. Pyral. 572. detritalis Guén.-W. I.-C. B. M. Pyral. 572. lycialis Walk.—W. I.—C. B. M. Pyral. 572. dryalis Walk.—St. Dom.—C. B. M. Pyral. 573. hecalialis Walk.—St. Dom.—C. B. M. Pyral. 573. helcitalis Walk .-- W. I.-- C. B. M. Pyral. 574. agavealis Walk.—St. Dom.—C. B. M. Pyral. 574. peleusalis Walk.—St. Dom.—C. B. M. Pyral. 575. jasonalis Walk.—St. Dom.—C. B. M. Pyral. 575. eurytalis Walk.-W. I.-C. B. M. Pyral. 576. glaucusalis Walk.—Jam.—C. B. M. Pyral. 576. philinoralis Walk.—Jam.—C. B. M. Pyral. 577. gealis Walk.—Jam.—C. B. M. Pyral. 578. eratalis Walk.—Jam.—C. B. M. Pyral. 578.

creonalis Walk.—St. Dom.—C. B. M. Pyral. 579. vestalis Walk.—Jam.—C. B. M. Pyral. 579. pyrinealis Walk.—St. Dom.—C. B. M. Pyral. 580. gnomalis Walk.—St. Dom.—C. B. M. Pyral. 580. ? ceresalis Walk.—St. Dom.—C. B. M. Pyral. 581. ? cœcilialis Walk.—St. Dom.—C. B. M. Pyral. 581. ? thalialis Walk.—St. Dom.—C. B. M. Pyral. 582. ? belusalis Walk.—St. Dom.—C. B. M. Pyral. 582.

## Ebulea Guénée. Botys Latr.

fumalis Guén.—Ga.—Guén. noct. IV, 358, 430. tertialis Guén.—N. Am.—Guén. noct. IV, 364, 446. murcialis Walk.—St. Dom.—C. B. M. Pyral. 746.

## Homophysa Guénée.

glaphyralis Guén.—N. Am.—Guén. noct. IV, 366. sesquistrialis Hübn.—Pa.—Hübn. Zutr. 369. Guén. noct. IV, 366.

#### Pionea Guénée.

rimosalis Guén.—N. Am.—Guén. noct. IV, 371. C. B. M. Pyral. 756. scripturalis Guén.—N. Am.—Guén. noct. 373, 476. C. B. M. Pyral. 757. eunusalis Walk.—N. Am.—C. B. M. Pyral. 756. helvalis Walk.—U. S.—C. B. M. Pyral. 757. dionalis Walk.—N. Scotia.—C. B. M. Pyral. 758.

#### Asciodes Guénée.

internitalis Guén.-Haiti.-Guén. noct. 375.

#### Spilodes Guénée.

? nisœecalis Walk.—N. Scotia.—C. B. M. Pyral. 771. helvialis Walk.—U. S.—C. B. M. Pyral. 772.

## Scopula Schr.

illibalis Hübn. U. S.—Hübn. Zutr. 95. Guén. noct. IV, 395. rubigalis Guén.—U. S.—Guén. noct. IV, 398. orasusalis Walk.—N. Scot.—C. B. M. 784. nestusalis Walk.—N. Scot.—C. B. M. 784. thoonalis Walk.—U. S.—C. B. M. 785. diotimealis Walk.—St. Dom.—C. B. M. 785.

#### Nymphula Schr.

similalis Guén.—N. Am.—Guén. noct. IV, 403.

## Mecyna Guénée.

reversalis Guén.—N. Am.—Guén. noct. IV, 409.

#### Galleria Fabr.

cereana Fabr.-U. S.-Harr. Ins. Mass. 357, 2d ed. 384.

## Fam. TORTRICIDAE.

## Loxotaenia Steph.

rosaceana Harr.—U. S.—Harr. Ins. Mass. 348, 2d ed. 376. Fitch, Tr. N. Y. Agr. Soc. XVI, 346. cerasivorana Fitch.—N. Y.—Tr. N. Y. Agr. Soc. XVI, 382.

#### Tortrix Treitschke.

sartena Hübn.—U. S.—Hübn. Zeutr. circulavia Hübn.—U. S.—Hübn. f. 363. tubercularia Hübn.—U. S.—Hübn. f. 733. lasciva Hübn.—U. S.—Hübn. f. 733. malana Fitch.—U. S.—Fitch, 3d Rep. 40. triquetrana Fitch.—U. S.—Fitch, 2d Rep. 244.

#### Penthina Treitschke.

pomonella Harr.—U. S.—Harr. Ins. Mass. 351, 2d ed. 379 (Carpocapsa). oculana Harr.—U. S.—Harr. Ins. Mass. 2d ed. 377.

## Argyrolepia Steph.

quercifoliana Fitch.-U. S.-Fitch, Fifth Report, p. 46.

### Croesia Hübner.

persicana Fitch.-N. Y.-Tr. N. Y. Agr. Soc. XVI, 357.

## Ephippiphora Duponchel.

caryana Fitch.—Tr. N. Y. Agr. Soc. XVI, 459.

#### Fam. TINEADAE.

## Tetralopha Zeller.

militella Zeller.—Car.—Zeller, Isis, 1848, 880. robustella Zeller.—Ga.—Zeller, Isis, 1848, 881.

#### Aphomia Hübner.

terenella Zell.—Ga.—Zell. Isis, 1848, 857.

## Myclois Hübner.

indiginella Zell.—N. Am.—Zell. Isis, 1848, 857. exulella Zell.—N. Am.—Zell. Isis, 1848, 857.

TINEADAE. 51

## Pempelia Hübner.

lignosella Zell.—N. Am.—Zell. Isis, 1848, 857. petrella Zell.—N. Am.—Zell. Isis, 1848, 857.

## Anacampsis Curtis.

robiniella Fitch.—5th Rep. N. Y. Apr. 1858, p. 834.

#### Cerostoma Latr.

brassicella Fitch.-U. S.-Fitch, Nox. Ins. N. Y. 170.

## Argyromyges Stephens.

quercifoliella Fitch.—N. Y.—Fifth Rep. N. Y. Agr. Soc. 1858, 827. quercialbella Fitch.—N. Y.—Fifth Rep. N. Y. Agr. Soc. 1858, 828. pseudacaciella Fitch.—N. Y.—Fifth Rep. N. A. Agr. Soc. 1858, 836. morrisella Fitch.—N. Y.—Fifth Rep. N. Y. Agr. Soc. 1858, 838. uhlerella Fitch.—N. Y.—Fifth Rep. N. Y. Agr. Soc. 1858, 838. ostensackella Fitch.—N. Y.—Fifth Rep. N. Y. Agr. Soc. 1858, 838.

#### Tinea Fabricius.

biflavimaculella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Sept. 1859, 257.

dorsistrigella Clemens.—Penn.—Loc. cit. 258.

crocicapitella Clemens.—Penn.—Loc. cit. 258.

carnariella Clemens.—Penn.—Loc. cit. 258.

lanariella Clemens.—Penn.—Loc. cit. 258.

nubilipennella Clemens.—Penn.—Loc. cit. 259.

variatella Clemens.—Penn.—Loc. cit. 259.

ligulella Hübn.-U. S.-Hübn. f. 143.

zeae Fitch.-U. S.-Fitch, 2d Rep. 320. Tr. N. Y. Agr. Soc. XV, 552.

## Xylesthia Clemens.

pruniramiella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Sept. 1859, 259.

#### Amydria Clemens.

effrenatella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Sept. 1859, 260.

### Anaphora Clemens.

plumifrontella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Sept. 1859, 261.

popeanella Clemens.—Penn.—Loc. cit. 261.

arcanella Clemens.—Penn.—Loc. cit. 261.

#### Incurvaria Haworth.

russatella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Jany. 1860, 5. acerifoliella Fitch.—N. Y.—Ornix acerifoliella Fitch, Nox. Ins. Rep. II, 272. Clemens, Pr. Acad. Nat. Sci. Phila. Jany. 1860, 5.

52 TINEADAE.

## Brachytaenia Steph. MS.

malana Fitch.-N. Y.-Tr. N. Y. Agr. Soc. XV, 473.

#### Plutella Schrank.

vigilaciella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Jany. 1860, 5. limbipennella Clemens.—Penn.—Loc. cit. 6. Cerostoma brassicella? Fitch, Rep. I, 170—5.

mollipedella Clemens.—Penn.—Loc. cit. 6.

## Hyponomeuta Zeller.

multipunctella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Jany. 1860, 8.

#### Eudarcia Clemens.

simulatricella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Jany. 1860,

#### Chaetochilus\* Stephens.

pometellus Harris.—N. Y.—Fitch, Nox. Ins. Rep. II, 229. malifoliellus Fitch.—N. Y.—Loc. cit. 232; Tr. N. Y. Agr. Soc. XV, 463. contubernalellus Fitch.—N. Y.—Loc. cit. 233. trimaculellus Fitch.—N. Y.—Loc. cit. 233. ventrellus Fitch.—N. Y.—Loc. cit. 234; Tr. Agr. Soc. XV, 466.

#### Argyresthia Hübner.

oreasella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Jany. 1860, 7.

## Gracilaria Zeller.

superbifrontella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Jany. 1860, 6.

fulgidella Clemens.—Penn.—Loc. cit. 6.

venustella Clemens.—Penn.—Loc. cit. 6.

strigifinitella Clemens.—Penn.—Loc. cit. 7.

violaceella Clemens.-Penn.-Loc. cit. 7.

## Ornix Treitschke.

trepidella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Jany. 1860, 7. festinella Clemens.—Penn.—Loc. cit. 7. crataegifoliella Clemens.—Penn.—Loc. cit. 8. acerifoliella Fitch.—U. S.—Fitch, 2d Rep. 269; Tr. N. Y. Agr. Soc. XV, 501.

## Cosmopteryx? Hübner.

gemmiferella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. 1860, 10.

<sup>\*</sup> This genus is no longer recognized. The individuals formerly included under it are now found chiefly under the genus Cerostoma. The above species, however, do not belong to the latter genus.

#### Bedellia? Stainton.

? staintoniella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Jany. 1860, 8.

## Cosmiotes Clemens.

illectella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Jany. 1860, 9. maculosella Clemens.—Penn.—Loc. cit. 9. madarella Clemens.—Penn.—Loc. cit. 9.

## Coleophora Zeller.

laticornella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Jany. 1860, 5. coenosipennella Clemens.—Penn.—Loc. cit. 5. infuscatella Clemens.—Penn.—Loc. cit. 5. cretaticostella Clemens.—Penn.—Loc. cit. 5. coruscipennella Clemens.—Penn.—Loc. cit. 4.

## Diachorisia Clemens.

velatella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Jany. 1860, 13.

#### Fam. LITHOCOLLETIDAE.

#### Lithocolletis Zeller.

lucidicostella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Nov. 1859, 319.

robiniella Clemens.—Penn.—Loc. cit. 319.

desmodiella Clemens.-Penn.-Loc. cit. 320.

æriferella Clemens.—Penn.—Loc. cit. 320.

basistrigella Clemens.—Penn.—Loc. cit. 321. argentifimbriella Clemens.—Penn.—Loc. cit. 321.

argontimitoricità oromons. Tomas noto etti ozz

obscuricostella Clemens.—Penn.—Loc. cit. 321.

ostryaefoliella Clemens.—Penn.—Loc. cit. 322.

lucetiella Clemens.—Penn.—Loc. cit. 322. obstrictella Clemens.—Penn.—Loc. cit. 322.

caryaefoliella Clemens.—Penn.—Loc. cit. 323.

aceriella Clemens.—Penn.—Loc. cit. 323.

guttifinitella Clemens .-- Penn .-- Loc. cit. 324.

crataegella Clemens.-Penn.-Loc. cit. 324.

hamadryadella Clemens.—Penn.—Loc. cit. 324.

argentinotella Clemens.—Penn.—Loc. cit. 325.

## Tischeria Zeller.

Solidagonifoliella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Nov. 1859, 326.

Zelleriella Clemens.—Penn.—Loc. cit. 326.

citrinipennella Clemens.—Penn.—Loc. cit. 326.

## Phyllocnistis Zeller.

vitigenella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Nov. 1859, 327.

## Leucanthiza Clemens.

amphicarpeaefoliella Clemeus.—Penn.—Pr. Acad. Nat. Sci. Phila. Nov 1859, 328.

## Bucculatrix? Zeller.

? coronatella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Jany. 1860, 12.

## Antispila Herrich-Schäffer, Frey.

nyssaefoliella Clemens.—Penn.—Pr. Acad. Nat. Sc. Phila. Jan. 1860, 11. cornifoliella Clemens.—Penn.—Loc. cit. 11.

## Aspidisca Clemens.

splendoriferella Clemens.—Penn.—Pr. Acad. Nat. Sci. Phila. Jany. 1860, 12.

## Fam. PTEROPHORIDÆ.

## Pterophorus Geoffr.

periscelidactylus Fitch.—U. S.—Fitch, Nox. Ins. Rep. I, 149. lobidactylus Fitch.—U. S.—Fitch, Nox. Ins. Rep. I, 143. tenuidactylus Fitch.—U. S.—Fitch, Nox. Ins. Rep. I, 144. cineridactylus Fitch.—U. S.—Fitch, Nox. Ins. Rep. I, 144. marginidactylus Fitch.—U. S.—Fitch, Nox. Ins. Rep. I, 144. nebulædactylus Fitch.—U. S.—Fitch, Nox. Ins. Rep. I, 145. naevosidactylus Fitch.—U. S.—Fitch, Nox. Ins. Rep. I, 145. cretidactylus Fitch.—U. S.—Fitch, Nox. Ins. Rep. I, 145.

## Fam. URAPTERYDAE. Phalenites Gn. (Geometra Linn.)

#### Choerodes Guénée.

incurvata Guén.—N. Am.—Guén. IX, 37, pl. 3, f. 2. transversata Dru.—N. Am.—Dru. I, pl. 8, f. 2. Guén. IX, 38. goniata Guén.—N. Am.—Guén. IX, 38.

#### Eutrapea Hbnr.

clemataria Hübn.—U. S.—Hübn. Samml. exot. Sm. Abb. II, 201, pl. 101. Guén. IX, 47. ephyrata Guén.—Guadaloupe.—Guén. IX, 69.

#### Acrosemia Herr. Sch.

decurtaria Herr. Sch.-N. Am.-Herr. Sch. Neu. exot. f. 481.

## Fam. ENNOMIDAE.

## Apicia Guénée

spinetaria Guén.—N. Am.—Guén. IX, 85. juncturaria Guén.—N. Am.?—Guén. IX, 88.

#### Microsema Her. Sch.

latistrigaria Herr. Sch.—N. Am.—Herr. Sch. Neu. exot. f. 482.

## Hemioptisis Her. Sch.

drapenularia Herr. Sch.-N. Am.-Herr. Sch. Neu. exot. f. 480.

## Priocycla Guénée.

armataria Herr. Sch.-N. Y.-Herr. Sch. Schm. exot. 373. Guén. IX, 91.

## Epione Dup.

serinaria Herr. Sch.-U. S.-Herr. Sch. Schm. exot. 365. Guén. IX, 99.

## Sicya Guénée.

solfataria Guén.—N. Y.—Guén. IX, 104. sublimaria Harr.—N. Y.—macularia Harr. Agass. Lake Sup. 392. truncataria Guén.—Can.—Guén. IX, 104.

## Angerona Dup.

crocaotaria Guén.—N. Am.—Guén. IX, 114. citrinaria Hbnr. Zutr. 499.

#### Hyperetis Guénée.

nyssaria Guén.—U. S.—Guén. IX, 118.

exsinuaria Guén.—U. S.—Guén. IX, 118.

amicaria Herr. Sch.—U. S.—Herr. Sch. Schm. exot. 361. Guén. IX, 118.

insinuaria Guén.—N. Am.—Guén. IX, 119.

persinuaria Guén.—N. Am.—Guén. IX, 119. subsinuaria Guén.—U. S.—Guén. IX, 119.

alienaria Herr. Sch.-U. S.-Herr. Sch. Schm. 364. Guén. IX, 120.

## Nematocampa Guénée.

filamentaria Guén.—N. Am.—Guén. IX, 121, pl. 5, f. 1.

## Endropia Guénée.

pectinaria Guén.—N. Am.—Guén. IX, 123. obtusaria Hübn.—N. Am.—Hübnr. Europ. Schm. 390. Guén. IX, 123. amoenaria Guén.—N. Am.—Guén. IX, 124, pl. 3, f. 8.

hypochraria H. Sch.—N. Am.—H. Sch. Schm. exot. 207, 8. Guén. IX, 125. refractaria Guén.—N. Y.—Guén. IX, 125. lateritiaria Guén.—N. Am.—Guén. IX, 125. tigrinaria Guén.—Can.—Guén. IX, 123.

#### Metrocampa Latr.

praegrandaria Guén.—N. Am.—Guén. IX, 128. perlata Guén.—N. Am.—Guén. IX, 128.

## Ellopia Treitsch.

pultaria Guén.—N. Am.—Guén. IX, 131. ? placeraria Guén.—Cal.—Guén. IX, 131. fervidaria Hübn.—Ga.—Hüb. Zutr. 409. Guén. IX, 132. fiscellaria Guén.—N. Am.—Guén. IX, 133. flagitiaria Guén.—N. Y.—Guén. IX, 133.

#### Caberodes Guénée.

metrocamparia Guén.—N. Am.—Guén. IX, 137. remissaria Guén.—Pa.—Guén. IX, 137. imbraria Guén.—Pa.—Guén. IX, 137. superaria Guén.—N. Am.—Guén. IX, 138. majoraria Guén.—N. Am.—Guén. IX, 138. ineffusaria Guén.—N. Am.—Guén. IX, 138. floridaria Guén.—N. Am.—Guén. IX, 139. phasianaria Guén.—Md.—Guén. IX, 140, pl. 3, f. 10. interlinearia Guén.—N. Y.—Guén. IX, 140.

#### Tetracis Guénée.

crocallata Guén.—N. Am.—Guén. IX, 141. aspilatata Guén.—N. Y.—Guén. IX, 141. aegrotata Guén.—Cal.—Guén. IX, 141. truxaliata Guen.—Cal.—Guén. IX, 142, pl. 20, f. 9.

## Eurymene Dup. Ennomos Boisd. Treitsch.

emargataria Guén.—N. Am.—Guén. IX, 145. fervidaria Herr. Sch. exot. phlogosaria Guén.—Can.—Guén. IX, 146. [203. alcoolaria Guén.—Can.—Guén. IX, 146.

### Metanema Guénée.

forficaria Guén.—Cal.—Guén. IX, 172. quercivoraria Guén.—N. Am.—Guén. IX, 172.

Ennomes Treitsch. Eugonia Hbn. Herr. Sch. magnaria Guén.—N. Am.—Guén. IX, 175. subsignaria Hübn.—N. Am.—Hübnr. exot. III, A. i. Guén. IX, 181.

## Fam. AMPHIDASYDAE.

#### Ceratonyx Guénée.

satanaria Guén.-Ga.-Guén. IX, 194, pl. 2, f. 2.

Amphidasys Treitsch. Biston Leach. Herr. Sch. quernaria Sm.—Ga.—Sm. Abb. II, 205, pl. 103. Guén. IX, 207. cognataria Guén.—N. Am.—Guén. IX, 208.

#### Fam. BOARMIDAE.

Hemerophila Steph. Boarmia Dup. Herr. Schaef. unitaria Herr.—N. Am.—Herr. Schaef. exot. 204. Guén. IX, 219.

## Synopsia Hübn. Boarmia Auct.

phigaliaria Guén.—N. Am.—Guén. IX, 225, pl. 4, f. I.

pampinaria Guén.—U. S.—Guén. IX, 245.

#### Boarmia Treits.

clivinaria Guén.—Cal.—Guén. IX, 245.
frugaliaria Guén.—Ga.—Guén. IX, 246.
humaria Guén.—Ga.—Guén. IX, 246.
intraria Guén.—Md.—Guén. IX, 246.
defectaria Guén.—N. Am.—Guén. IX, 248.
sublunaria Guén.—N. Am.—Guén. IX, 248.
titearia Cram.—Va.—Cram. 275, c. Guén. IX, 248.
gnopharia Guén.—N. Am.—Guén. IX, 251, pl. 5, f. 10.
umbrosaria Guén.—Ga.—Guén. IX, 251. Hübn. exot. VI, Aa.
porcelaria Guén.—N. Am.—Guén. IX, 252.
larvaria Guén.—Can.—Guén. IX, 247.
canadaria Guén.—Can.—Guén. IX, 263.

## Tephrosia Boisd. Ectropis Hübn.

cribrataria Guén.-Ga.-Guén. IX, 260, pl. 3, f. 9.

#### Paraphia Guénée.

deplanaria Guên.—N. Am.—Guén. IX, 272. subatomaria Guén.—N. Am.—Guén. IX, 272. nubecularia Guén.—N. Am.—Guén. IX, 273.

## Bronchelia Gnénée.

hortaria Guén.—U. S.—Guén. IX, 289. Hübn. 153. liriodendraria Sm. Abb. II, 203, pl. 102. dendraria Guén.—U. S.—Guen. IX, 289.

## Stenotrachelys Guénée.

approximaria Hübn -N. Am.-Hbn. exot. VI, B-a. Guén. IX, 290.

#### Exclis Guénée.

pyrolaria Guén.—N. Am.—Guén. IX, 324.

## Fam. GEOMETRIDAE.

## Geometra Linn.

iridaria Guén.—N. Am.—Guén. IX, 344. siccifolia Fitch.—N. Y.—Tr. N. Y. Agr. Soc. XVI, 381.

### Nemoria Hübn. Geometra Alior.

? pistasciaria Guén.—N. Am.—Guén. IX, 348. chloroleucaria Guén.—N. Am.—Guén. IX, 351. faseolaria Guén.—Cal.—Guén. IX, 351.

#### Iodis Hübn.

euchloraria Guén.—N. Am.—Guén. IX, 355.

## Dyspteris Hübn.

abortivaria Herr. Sch.-Ohio.-Herr. Sch. exot. 346. Guén. IX, 363.

#### Racheospila Guénée.

lixaria Guén.—N. Am.—Guén. IX, 374.

#### Synchlora Guénée.

liquoraria Guén.—Cal.—Guén. IX, 375.

## Oporabia Stephens.

dilutata Schieferm.—N. Y.—Fitch, Tr. N. Y. Agr. Soc. 1858, 344.

## Aplodes Guénée.

mimosaria Guén.—Ga.—Guén. IX, 377. aerata Fab. Sup. 238. glaucaria Guén.—Ga.—Guén. IX, 377.

## Fam. PALYADAE.

#### Byssodes Guénée.

argentata Drur.—Jam.—Drur. II, 25, pl. 14. privignaria Guén.—Martinique.—Guén. IX, 401.

## Fam. EPHYRADAE.

#### Numia Guénée.

terebintharia Guén.-Hayti.-Guén. IX, 403.

## Ephyra Dup. Zonosoma Herr. Sch.

culicaria Guén.—Ga.—Guén. IX, 407. myrtaria Guén.—N. Am.—Guén. IX, 408. pendulinaria Guén.—N. Am.—Guén. IX, 414. rudimentaria Guén.—Hayti.—Guén. IX, 407.

## Fam. ACIDALIDAE.

## Acidalia Treitsch.

magnetaria Guén.—Cal.—Guén. IX, 450. sideraria Guén.—Cal.—Guén. IX. 451. demissaria Hübn.—N. Am.—Guén. IX, 466. insularia Guén.—N. Am.—Guén. IX, 469. placidaria Guén.—N. Am.—Guén. IX, 469. pannaria Guén.—N. Am.—Guén. IX, 470. hepaticaria Guén.—N. Am.—Guén. IX, 471. laevitaria Hübn.—N. Am.—Hbr. Zutr. 873. Guén. IX, 471. sublataria Guén.—N. Am.—Guén. IX, 474. ossularia Guén.—Pa.—Guén. IX, 475. temnaria Guén.—N. Am.—Guén. IX, 476. myrmidonata Guén.—N. Am.—Guén. IX, 487. lautaria?—Hübn. Zut. 539.purata Guén.—N. Am.—Guén. IX, 488, pl. 7, f. 6. Iumenaria Hübn.—N. Am.—Gnén. IX, 488. Hübn. Zutr. 757-58. inductata Guén.—N. Am.—Guén. IX, 494. monogrammata Guén.—Hayti.—Guén. IX, 463. umbilicata Fab.—Hayti.—Guén. IX, 504.

Timandra Dup. Ennomos Tr. Acidalia Herr. Sch. viridipennaria Guén.—N. Am.—Guén. X, 3.

## Fam. CABERADAE.

Stegania Guénée. Cabera Treitsch.

pustularia Guén.—N. Am.—Guén. X, 49, pl. 17, f. 9.

#### Cabera Treitschke.

erythemaria Guen.—N. Am.—Guen. X, 56.

## Corycia Dup. Bapta Steph. Herr. Sch.

hermineata Guén.—N. Am.—Guén. X, 58. albata Guén.—Ga.—Guén. X, 58. vestaliata Guén.—N. Am.—Guén. X, 59.

## Fam. MACARIDAE.

## Amilapis Guénée.

triplipunctata Fitch.—5th Rep. Tr. N. Y. Agr. Soc. 1858, 325. unipunctata Haw.—N. Am.—Guén. X, 62. nullaria Hübn.—N. Am.—Guen. X, 63.

## Macaria Curt.

distribuaria Hübn.—N. Am.—Hübn. Zut. 585. Guén. X, 76, pl. 4, f. 6 praeatomata Guen.—N. Am.—Guén. X, 76. bicolorata Fab.—Va.—Guén. X, 77. ocellinata Guén.—N. Am.—Guén. X, 85. granitata Guén.—Pa.—Guén. X, 85. contemptata Guén.—N. Am.—Guèn. X, 86

## Malia Dup.

marcescaria Guén.—Cal.—Guén. X, 92.

## Fam. FIDONIDAE

## Tephrina Guénée. Fidonia Tr. Herr. Sch.

haliata Guén.—Cal.—Guén. X, 97.
muscariata Guén.—Cal.—Guén. X, 98.
neptaria Guén.—N. Am.—Guén. X, 99.
gnophosaria Guén.—N. Y.—Guén. X, 99.
monicaria Guén.—Cal.—Guén. X, 100.
unicalcararia Guén.—Cal.—Guén. X, 100.
lorquinaria Guén.—Cal.—Guén. X, 101.
sabularia Guén.—Cal.—Guén. X, 105.
detersata Guén.—N. Am.—Guén. X, 105.

#### Psamatodes Guénée.

eremiata Guén.—N. Am.—Guén. IX, 109. nicetaria Guen.—N. Am.—Guén. IX, 107.

## Cyclomia Guénée.

mopsaria Guén.—Hayti.—Guén. X, 124. iodaria Guén.—Hayti.—Guén. X, 124. plagaria Guén.—Hayti.—Guén. X, 125.

## Numeria Dup.

obfirmaria Hübn.—N. Am.—Hübn. exot. VI. Guén. X, 135. hamaria Guén.—N. Am.—Guén. X, 136. fritillaria Guén.—U. S.—Guén. X, 136. duaria Guén.—Can.—Guén. X, 135.

## Selidosoma Led. Fidonia et Boormia Herr. Sch.

juturnaria Guén.—Cal.—Guén. X, 147, pl. 15, f. 9. faeminaria Guén.—Cal.—Guén. X, 149.

#### Fidonia Treitsch.

avuncularia Guén.—Cal.—Guén. X, 155.

## Haematopis Hübn.

grataria Fab.—N. Am.—Guén. X, 171, pl. 19, f. 6. saniaria Hüb. Zutr. 345.

## Gorytodes Guénée.

uncanaria Guén.—Cal.—Guén. X, 180. Plataea californiaria Herr. Sch. Neu. exot. f. 537.

#### Aspilates Treitsch.

dissimilaria Hübn.—Cal., N. Am.—Guén. X, 182. coloraria Fab.—N. Am.—Guén. X, 183. accessaria Hübner, exot. 503. sigmaria Guén.—N. Am.—Guén. X, 184.

## Fam. ZERENIDAE.

## Pantherodes Hübner.

unciaria Guén.—Mex.—Guén. X, 201.

#### Abraxis Leach.

?ribearia Fitch.—North. St.—Fitch Trans. Agricult. Soc. N. York, VII. Guén. X, 208.

## Fam. LIGIADAE.

## Doryodes Guénée.

acutaria Herr. Sch.—Ga.—Herr. Sch. Supp. 74, f. 417. Guen. X, 233, pl. spadaria Guén.—Flor.—Guén. X, 234. [17, f. 6.

## Fam. LARENTIADAE.

## Larentia Treitsch. Oporabia Steph.

dilutata Auct.—N. Am. et Eur.—Auct. Fitch, Fifth Report. implicata Guén.—Cal.—Guén. X, 284.

## Eupithecia Curtis.

subapicata Guén.—Cal.—Guén. X, 331.

## Lepiodes Guénée.

scolopacinaria Guén.-U. S.-Guén. X, 360.

## Ypsipetes Steph.

pluviata Guén.-N. Am.-Guén. X, 378.

## Melanthia Dup.

ruficillata Guén.—Can.—Guén. X, 382.

## Melanippe Dup. Cidaria Tr., Herr. Sch.

gothicata Guén.—N. Am.—Guén. X, 388. lacustrata Guén.—N. Y.—Guén. X, 395. intermediata Guén.—Pa.—Guén. X, 395. iduata Guén.—Can.—Guén. X, 403.

#### Anticlea Guénée.

vasiliata Guén.—Can.—Guén. X, 407.

## Coremia Guénée. Cidaria Treitsch., Herr. Schaef.

convallaria Guén.—Cal.—Guén. X, 410. defensaria Guén.—Cal.—Guén. X, 411. orthogrammaria Led.—Ga.—Guén. X, 417. plebeculata Guén.—Cal. ?—Guén. X, 419.

# Phibalapteryx Steph. Larentia Treitsch intestinata Guén.—N. Am.—Guén. X, 432.

## Scotosia Steph. Larentia Auct.

haesitata Guén.—Cal.—Guén. X, 444. pannosata Guen.—Hayti.—Guén. X, 443.

## Spargania Guénée.

magnoliata Guén.-Can.-Guén. X, 455.

#### Cidaria Treitsch.

mancipata Guén.—Cal.—Guén. X, 468. diversilineata Hübn.—N. Am.—Hübn. Guén. X, 475. gracilineata Guén.—N. Am.—Guén. X, 476. immanata Haw.—Can.—Guén. X, 466. var. russata.

## Fam. EUBOLIADAE.

## Eubolia Dup.

custodiata Guén.—Cal.—Guén. X, 491.

#### Fam. SIONADAE.

#### Heterophleps Herr. Sch.

triguttaria Herr. Sch.—Pa.—Herr. Sch. exot. 202. Guén. X, 514.

#### Odezia Boisd.

albovittata Guén.—N. Y.—Guén. X, 520.

## Anisopteryx Steph.

vernata Peck.—U. S.—Harr. Ins. Mass. 332, 2d ed. 359. pometaria Harr.—U. S.—Harr. Ins. Mass. 333, 2d ed. 360.

#### Hybernia Latr.

tiliaria Harr.-U. S.-Harr. Ins. Mass. 342, 2d ed. 370.

## APPENDIX.

The 17-18 number of Catalogue of Lepidoptera of the British Museum, received as the present work is going through the press, contains the following additional species:—

## Pyralidae.

Pyralis hyllalis Walk.—N. Am.—C. B. M. Pt. XVII, p. 265—p. 46 of Catal.

Aglossa cuprealis Hübn.-U. S., Eur.-Guén. Delt. et Pyral. 127.

Pyrausta orphisalis Walk.—Nova Scot.—C. B. M. Pt. XVII, 311. Pyrausta erosnealis Walk.—U. S.—C. B. M. Pt. XVII, 311.

Rhodaria nescalis Walk.-U. S.-C. B. M. Pt. XVII, 315.

Rhodaria flegialis Walk.-U. S.-C. B. M. Pt. XVII, 316.

Rhodaria? ophionalis Walk.—U. S.—C. B. M. Pt. XVII, 316.

Ennychia glomeralis Walk.—Nov. Scot.—C. B. M. Pt. XVII, 331.

Desmia funeralis Hübn.—U. S.—Guén. Delt. et Pyral. 189, 122 synonym. of D. maculalis.

Desmia? janassialis Walk — U. S.—C. B. M. Pt. XVII, 337.

Samea elealis Walk.—U. S.—C. B. M. Pt. XVII, 351.

Samea jarbusalis Walk.—St. Dom.—C. B. M. Pt. XVII, 352.

Samea acestealis Walk.—St. Dom.—C. B. M. Pt. XVII, 352.

Samea medealis Walk.—St. Dom.—C. B. M. Pt. XVII, 353.

Asopia archasialis Walk.—U. S.—C. B. M. Pt. XVII, 365.

Asopia dircealis Walk.—St. Dom.—C. B. M. Pt. XVII, 365.

Isopteryx? obliteralis Walk.—U. S.—C. B. M. Pt. XVII, 399.

Isopteryx? leucothoalis Walk.—U. S.—C. B. M. Pt. XVII, 400.

Olistogoma seminealis Walk.—U. S.—C. B. M. Pt. XVII, 430.

Cataclysta lamialis Walk.—U. S.—C. B. M. Pt. XVII, 436.

Cataclysta claudialis Walk.—U. S.—C. B. M. Pt. XVII, 437.

Cataclysta? julianis Walk.-U. S.-C. B. M. Pt. XVII, 438.

Paraponyx allionealis Walk.—U. S.—C. B. M. Pt. XVII, 453.

Phalangioides serinalis Walk.—U. S.—C. B. M. Pt. XVII, 468.

Phalangioides? negatilis Walk.—U. S.—C. B. M. Pt. XVII, 468.

Zebronia platinalis Guén.—Delt. et Pyral. 282, 277. C. B. M. Pt. XVII,

Zebronia hedonialis Walk.—W. Ind.—C. B. M. Pt. XVII, 470.

Phakellura hyalinatalis Gn.—St. Dom.—Delt. et Pyral. 296, 302. C. M. Pt. XVIII, 510.

Phakellura immaculalis Gn.—U. S.—Guén. Delt. et Pyral. 297, 303. C. B. M. Pt. XVIII, 510.

Phakellura nitidalis Cram.—N. Am.—Guén. Delt. et Pyral. 299, 311. C. B. M. Pt. XVIII, 511.

## INDEX OF GENERA.

Abraxis, 61 Abrostola, 35 Achatodes, 38 Acidalia, 59 Acontia, 33 Acronycta, 26 Acrosemia, 54 Aegeria, 16 Aganisthos, 9 Agarista, 15 Agathodes, 47 Aglia, 21 Aglossa, 47, 64 Agnomonia, 33 Agraulis, 7 Agrophila, 35 Agrotis, 42 Alaria, 34 Allotria, 43 Alypia, 15 Ambulyx, 20 Amilapis, 60 Amphidasys, 57 Amydria, 51 Anaphora, 51 Anacampa, 51 Anarta, 35 Anartia, 9 Angerona, 55 Anisopteryx, 63 Anomis, 34 Anthoecia, 34 Anthocaris, 4 Anthracia, 42 Anticlea, 62 Antispila, 54 Apamea, 30 Apantesis, 24 Apatela, 29 Apatura, 9 Aphomia, 50 Apicia, 55 Aplodes, 58 Arctia, 24 Arctonotus, 18 Argus, 12 Argynnis, 7

Argyresthia, 52 5 Argyromyges, 51 Argyrolepia, 50 Artace, 22 Ascoides, 49 Asopia, 47, 64 Aspila, 35 Aspilates, 61 Aspidisca, 54 Attacus, 21

Bankia, 37 Basilodes, 36 Bedellia, 53 Bendis, 33 Bleptina, 40 Boarmia, 57 Bolina, 48 Botys, 48 Brachytaenia, 52 Bronchelia, 57 Brysodes, 59 Bucculatrix, 54

Cabera, 60 Caberodes, 56 Caenurgia, 44 Caliptera, 44 Calisto, 11 Callimorpha, 25 Callopistria, 35 Callydrias, 4 Calocampa, 38 Calyptis, 35 Campometra, 42 Caradrina, 46 Cassandria, 38 Castnia, 14 Cataclysta, 64 Catocala, 32 Celaena, 39 Ceramica, 41 Cerastis, 41 Ceratocampa, 22 Ceratomia, 20 Ceratonyx, 57 Cerostoma, 51 Cerura, 23

Chaetochilus, 52 Chamyris, 33 Chariptera, 37 Chionobas, 10 Chloridea, 35 Choerodes, 54 Choerocampa, 19 Chrysauge, 25 Cidaria, 63 Cirroedea, 30 Cissusa, 29 Clanyma, 32 Cliniodes, 48 Clisiocampa, 22 Clostera, 23 Coenonympha, 11 Coleophora, 53 Colias, 5 Corycia, 60 Cosmia, 30 Cosmiotes, 53 Cosmopteryx, 52 Cossus, 14 Crambodes, 42 Croesia, 50 Crymodes, 39 Cucullia, 41 Cyclomia, 61 Cyclopides, 13 Cymatophora, 26

Danais, 6
Darapsa, 19
Daremma, 20
Dasychira, 23
Datana, 22
Debis, 10
Deiliphila, 20
Deiropeia, 24
Derrima, 35
Desmia, 47, 64
Diachorisia, 53
Dianthoecia, 30
Diphthera, 26
Doryodes, 48
Drasteria, 44
Dryocampa, 21
Dyopteris, 58

Ecpantheria, 25 Ellema, 20 Ellopia, 56 Endropia, 55 Ennomis, 56 Ennychia, 64 Enyo, 18 Ephippiphora, 50 Epialus, 14 Epione, 55 Epunda, 38 Erastria, 16 Erebia, 10 Eriopus, 35 Eubolia, 49 Euclidia, 49 Euclidia, 49 Eucyane, 25 Eudarcia, 52 Eudule, 25 Eudryas, 23 Eupithecia, 62 Eurymene, 38 Eurymene, 56 Eutropea, 54 Eutropea, 54 Exelis, 58

Famila. 34 Fidonia, 61

Galgula, 37 Galleria, 50 Gastropacha, 22 Geometra, 58 Glaucopis, 16 Glottula, 29 Gnophria, 26 Goniloha, 13 Goniopteryx, 4 Gortyna, 28 Gorytodes, 61 Gracillaria, 52 Grammophora, 27 Grapiphora, 40 Grapta, 8

Hadena, 38 Halesidota, 26 Halia, 60 Haemotopsis, 61 Hapalia, 40 Hecatera, 37 Helia, 46 Heliophobus, 39 Heliconia, 6 Heliothis, 34 Hemicera, 36 Hemerophila, 57 Hemioptisis, 55 Herbula, 47 Herminea, 45 Hesperia, 14 Heterocampa, 22 Heterophleps, 63 Homophysa, 49 Homoptera, 31 Hoporina, 41 Hyalea, 47 Hybernia, 63 Hydroecia, 29 Hypena, 45 Hyponomeuta, 52 Hyperites, 55 Hypogramma, 43

Incurvaria, 51 Ingura, 32 Ino, 15 Iodis, 58 Isogona, 45 Isopteryx, 47, 64 Ithomia, 6

#### Junonia, 8

Laphrygma, 39 Larentia, 6 Lemonias, 13 Lepidomys, 35 Lepiodes, 62 Lepipolys, 35 Leptalis, 3 Leptina, 29 Leptosia, 37 Letis, 31 Leucania, 28 Leucanthiza, 54 Libythea, 11 Licinia, 3 Limacodes, 15 Limenitis, 9 Lithocolletis, 53 Lithosia, 26 Lophocampa, 26 Lophoptera, 43 Loxotaenia, 50 Lycaena, 11 Lycomorpha, 26 Lyssia, 44

Macroglossa, 17 Mamestra, 29 Margarodes, 48 Marmorina, 45 Marmotinia, 31 Mecyna, 49 Melanippe, 62 Melanthia, 62 Melitaea, 8 Mesogona, 30 Metanema, 56 Metrocampa, 56 Miana, 39 Miera, 37 Microcoelia, 28 Microsema, 55 Microphysa, 37 Monogona, 34 Monodes, 40 Morpheis, 9 Myclois, 50 Mythimna, 29

Macaria, 60

Naenia, 34 Nathalis, 4 Nemeophila, 25 Nemoria, 58 Nemetocampa, 55 Nephelodes, 38 Nerice, 23 Nisoniades, 13 Nonagria, 29 Notodonta, 22 Numeria, 61 Numia, 59 Nymphalis, 9 Nymphidia, 13 Nymphula, 49

Ochropleura, 41 Odezia, 63 Oeposanda, 20 Olistogoma, 64 Ophiusa, 33 Oporabia, 58 Orgyia, 23 Oria, 42 Ornix, 52 Orthodes, 30 Orthosia, 41

Pachylia, 19 Pamphila, 13 Panopoda, 45 Pantherodes, 61 Panula, 43 Paphia, 6 Papilio, 1 Paraponyx, 64 Parophia, 51 Parnassius, 3 Parthenos, 44 Parthenodes, 47 Pempelia, 50 Penthina, 50 Pergesa, 20 Perigea, 40 Perigonia, 47 Perophora, 15 Phacellura, 46, 64 Phaeocyma, 31 Phalangeoides, 64 Phibalopteryx, 62 Philampelus, 19 Phlogophora, 37 Phragmatobia, 24 Phurys, 44 Phylloenistis, 54 Pieris, 3 Pionea, 49 Placodes, 32 Plusia, 35 Plutella, 51 Poaphila, 44 Polia, 37Polyommatus, 12 Polyphaenis, 37 Pontia, 3

Priocycla, 55 Procris, 15 Prodenia, 39 Proserpinus, 18 Psammatodes, 61 Pseudophia, 33 Pterogon, 18 Pterophorus, 54 Pygaera, 23 Pyrameis, 8 Pyralis, 46, 64 Pyrausta, 64

Racheospila, 58 Raphia, 37 Remigia, 45 Renia, 46 Rhodaria, 47, 64 Rhodocera, 4 Rhodophora, 34 Rivula, 45

Samea, 47, 64 Saturnia, 20 Satyrus, 10 Scoliocampa, 38 Scoliopteryx, 34 Scopolosoma, 41 Scopula, 49 Scotosia, 63 Selidosoma, 61 Sesia, 17 Siavana, 34 Siderone, 6 Sisya, 55 Smerinthus, 20 Spaelotes, 40 Spargania, 63 Sphinx, 18 Spilodes, 39 Spilomela, 47 Spilosoma, 24 Stegania, 60 Stenia, 47 Stenotrachelys, 58 Synchloe, 6 Synchlora, 58 Syneda, 43 Synopsia, 57 Syriethus, 14

Taeniocampa, 41 Tanada, 23 Tephrina, 60 Tephrosia, 57 Terias, 5 Tetracis, 56 Tetralopha, 50 Thecla, 11 Thermesia, 31 Thyatira, 26 Thyreus, 18 Thyris, 17 Thysidopteryx, 17 Timandra, 59 Tinea, 51 Tischeria, 53 Tortrix, 50 Trochilium, 16

Urania, 17

Vanessa, 8

Xanthia, 28 Xanthidia, 5 Xanthoptera, 37 Xestia, 41 Xylesthia, 51 Xylina, 40 Xylomyges, 39 Xylophasia, 30

Ypsia, 42 Ypsipites, 62 Yphthima, 10

Zebronia, 64 Zeuzera, 15

PUBLISHED BY THE

SMITHSONIAN INSTITUTION.

MAY, 1860.

## SMITHSONIAN MISCELLANEOUS COLLECTIONS.

## CLASSIFICATION

OF THE

# COLEOPTERA

OF

## NORTH AMERICA.

PREPARED FOR THE SMITHSONIAN INSTITUTION.

BY

JOHN L. LECONTE, M.D.

PART I.



WASHINGTON: SMITHSONIAN INSTITUTION.

MAY, 1861-MARCH, 1862.

## ADVERTISEMENT.

The present work is one of a series to be published by the Smithsonian Institution for the purpose of facilitating the study of certain branches of the Natural History of North America which appear to require special aid. It has been prepared, at the request of the Institution, by Dr. LeConte, to whom science is much indebted for thus devoting his time to the preparation of an elementary book, intended to introduce others to a field in which he has himself been so successful a pioneer.

JOSEPH HENRY,

Secretary S. I.

Smithsonian Institution, Washington, May, 1861.

The preceding advertisement was written and published with page 1—208, in May, 1861. Since then, pages 209—278, completing Part I of the present work, have been prepared and are now published.

The second and concluding part of the work will contain the families embraced in the divisions Tetramera and Trimera of the older authors. Some time will, however, necessarily elapse before it can be prepared by Dr. LeConte.

J. II.

February, 1862.

ACCEPTED FOR PUBLICATION, OCTOBER, 1860.

PHILADELPHIA: COLLINS, PRINTER.

## PREFACE.

The science of Entomology, in this country, is to a very considerable degree traditional. The series of specimens which are arranged and named have assumed their scientific value entirely from the labors of four or five individuals, who, from peculiarly favorable circumstances, have been enabled to lay a groundwork for scientific investigation by conference or correspondence with European students.

The present small treatise, prepared at the request of the Smithsonian Institution, is intended, so far as relates to the determination of genera of Coleoptera, to obviate the necessity for this traditional knowledge, and to enable those who have a desire beyond that of the mere collection of specimens to acquire sufficient information to enable them to consult with profit the various works in which are found scattered the descriptions of our species.

At the same time it is designed to present in as compact a form as possible the most recent results of scientific analysis, as applied to the classification of those genera of Coleoptera which have been found in that portion of America north of Mexico. In presenting these results, I have by no means adhered to the opinious expressed by those who have previously written on the classification of the order of insects which will occupy our attention; but where it has seemed to me possible to change with advantage the schemes already proposed, I have not hesitated to alter them.

The work is, therefore, intended for two classes of persons—for those who wish to obtain a knowledge of this branch of science, and for those who have already acquired that knowledge, and who now occupy the position of investigators.

The first class, or beginners, will here find the elementary

results obtained from a long course of reading and the observation of abundant materials. A knowledge of these results will enable them to understand the more special memoirs which they will find it necessary to use in the prosecution of their future studies, and eventually to correct any errors which are contained in the present treatise. The second class, or investigators, will find herein certain views proposed for their adoption, which, with the material afforded by our fauna, seem to the author to be preferable to those presented in previous works. Many of the presumed improvements will no doubt be rejected, but it is hoped that at all events they will help, like those which have gone before them, to establish a basis for future progress.

Bibliographical references have been avoided in the body of the work; they would increase considerably the size, without rendering the work more useful. The beginner does not need them; the investigator knows where to find them in more general works.

I have derived great aid in the preparation of this work from the Genera des Coléoptères, by my learned friend Prof. Th. Lacordaire, and from the Genera des Coléoptères d'Europe, by Jacquelin du Val, both admirable works, which, except in some very intricate cases, render any reference to the earlier authors on the subject of genera almost unnecessary.

In conclusion, I would repeat that the present work is not expected to inspire any one with a love for this branch of Entomology, but to satisfy, so far as I am able, the desires which have arisen in the minds of those in whom the sacred fire of science has already been kindled.

JOHN L. LECONTE.

PHILADELPHIA, April, 1861.

# TABLE OF CONTENTS.

Preface .					iii	TRICHOPTERYGIDAE				79
Introduction					vii	PHALACRIDAE .				80
Table of O	rders	of I	nsec	ts	vii	NITIDULIDAE .		,		81
External	Orga	nizat	ion	of		MONOTOMIDAE .				85
Cole	opter	·a			vii	TROGOSITIDAE .				86
$\mathbf{Head}$					ix	Trogositidae				87
Thoras	X.				xiv	Peltidae .				88
W	ings				xvii	Peltasticidae				88
$L\epsilon$	egs				zviii	COLYDIDAE .				89
Abdon	ien				xix	Rhyssodidae .				92
Other	Strue	ture	S		ZZ	CUCUJIDAE .				93
Table of Famili	ies				iixx	Silvanidae.				94
CICINDELIDAE					1	Passandridae				94
CARABIDAE					4	Cucujidae .			,	95
Carabidae					5	Hemipeplidae				9.3
Ozenidae					14	Telephanidae				96
Harpalidae					16	CRYPTOPHAGIDAE				96
Amphizoidae					36	DERODONTIDAE .				100
Dytiscidae					38	LATHRIDHDAE .				101
GYRINIDAE					42	Othniidae .				102
Hydrophilidae					43	Мусеторнасидае				104
SILPHIDAE					48	Mycetophagidae	)			104
Silphidae					48	Diphyllidae				105
Brathinida	e				52	Dermestidae .				105
Scydmænidae					53	Byturidae .				106
PSELAPHIDAE					54	Dermestidae				107
Clavigerida	ıe.				55	Byrrhidae .				100
Pselaphida	е				56	Nosodendridae				110
Staphylinidae					58	Byrrhidae .				111
Staphylinic	dae				59	Chelonariidae				112
Piestidae					72	Georyssidae .				113
Micropepli	$_{ m dae}$				72	Parnidae .				114
HISTERIDAE					73	Psephenidae				115
Histeridae					74	Parnidae .				115
Murmidiid	ae				78	Elmidae .				117
Scapiiidiidae					78	HETEROCERIDAE				117

## TABLE OF CONTENTS.

LUCANIDAE .			119	DASCYLLIDAE .		177
Scarabæidae .			121	Dascyllidae		178
S. Laparosti	cti		123	Helodidae .		179
Melolonthid	ae		131	LAMPYRIDAE .		182
S. Pleurostic	eti		141	Lampyridae		183
BUPRESTIDAE .			149	Telephoridae		186
THROSCIDAE .			157	MALACIIIDAE .		190
Elateridae .			158	CLERIDAE		194
Encuemidae			160	LYMEXYLIDAE .		198
Cerophytida	e		162	CUPESIDAE .		199
Elateridae.			<b>1</b> ¢3	PTINIDAE		200
CEBRIONIDAE .			174	Ptinidae .		201
Rhipiceridae .			175	Anobiidae .		202
Schizopodidae .			176	Bostrichidae		206
				I watidaa		900

## INTRODUCTION.

THE articulate branch of the animal kingdom contains animals composed of simple rings, more or less similar to each other, which contain and support the organs necessary to animal life.

According to the method in which this plan of structure is exemplified, articulate animals are divided into three classes:—

Body permeated by air vessels.

INSECTA.

Body without air vessels:

Thoracic region distinct from abdominal.

CRUSTACEA. VERMES.

Thoracic region not distinct.

The class Insecta are again divided by subordinate modifications in the plan of structure into three sub-classes:—

Head, thorax and abdomen distinct, legs 6. Head and thorax usually agglutinated, legs 8. Head distinct, legs numerous.

INSECTA.
ARACHNIDA.
MYRIAPODA.

The first sub-class Insecta (genuina) alone occupy our attention at present.

In examining the transformations of those which pass from a larval form, which is very different from the adult, we find that the changes may be grouped as follows:—

- 1. Greater concentration of the central organs, and diminution of the number of external segments.
  - 2. Greater complication of the peripheral organs.
  - 3. Hardening of the integument.

We also find that certain forms, when hatched from the egg, resemble in appearance the parent, and finally assume the characters of the adult after growth, and repeated changes of skin. In others the individual emerging from the egg bears no resemblance to the adult, but after growth, accompanied with several changes of skin, passes into a condition in which a body similar to that of

the perfect insect is covered by an integument, which is finally shed. This condition is ealled the pupa, during which the animal is sometimes active, and sometimes inactive. The three thoracic segments are in the perfect insect either similar (except that the middle and posterior ones bear the wings) or agglutinated, or the anterior one, or prothorax, is freely movable, and the other two closely connected with each other and with the abdomen. The parts of the mouth are also modified in form, so that the mandibles and maxillæ are either free moving lateral organs fitted for mastication and prehension, or are elongated, forming a sneking tube. In the former case the mouth is said to be mandibulate, in the latter haustellate. The wings are also of various structure.

The embryological studies of insects are as yet not sufficiently progressed to enable us to subordinate these complications of structure, in such manner as to determine which forms are higher and which lower. We can merely state in general terms that those having a perfect metamorphosis are the highest; and those having the thoracic segments agglutinated, or the prothorax separate, are to be considered above those in which the larval character of similarity among the thoracic segments is preserved.

By a parity of reasoning, those orders in which the appendages of the thoracic organs (the wings) are remarkably different in form must be considered as higher than the most nearly allied forms in which they are similar.

The sub-class therefore divides into orders as follows:—

§ Metamorphosis distinct; wings usually present;
Pupa inactive;

Mouth mandibulate:

Prothorax free; anterior wings corneous.

I. Coleoptera.
Thorax agglutinate; wings 4, membranous; posterior ones smaller.

II. HYMENOPTERA.

Mouth haustellate; thorax agglutinate;

Anterior wings membranous, posterior abortive. III. DIPTERA. Wings 4, membranous, usually covered with scales.

IV. LEPIDOPTERA.

Pupa variable, sometimes active,\* sometimes inactive; thorax variable; mouth mandibulate; wings 4, membranous, nearly equal.

V. NEUROPTERA.

<sup>\*</sup> Those having an active pupa (Віомокриотіса, Westwood) are now called Pseudoneuroptera, and are united by some authors with Orthoptera, with which, however, they appear to have but little affinity. The habits, as observed to me by Baron R. Osten Sacken, are quite different, the

Pupa active; wings 4; prothorax free;

Mouth mandibulate. Mouth haustellate. VI. ORTHOPTERA. VII. HEMIPTERA.

§§ Metamorphosis none; wings wanting;

Abdomen without appendages.

Abdomen with anal appendages.

IX. ANOPLURA.
X. THYSANOURA.

The order Neuroptera is very difficult to define, though the sub-orders composing it are very readily distinguished from any of the other orders.

Several so-called orders will by this scheme become attached to the orders here recognized, by possessing a majority of the characters above mentioned; thus the Strepsiptera become the Coleopterous family Stylopidæ; the Thysanoptera and Euplexoptera unite with the Orthoptera; the Aphaniptera with the Diptera, and the Trichoptera become a sub-order of Neuroptera.

Having thus exhibited the elementary characters upon which the orders are based, the special subject of the present treatise may now occupy the attention of the student.

In order that the body of the work may be made intelligible to the beginner, it will be necessary to make a brief exposition of the external anatomy of Coleopterous insects, before attempting to define the numerous families which compose the order. The three regions, the head, thorax, and abdomen, will therefore be taken up in succession.

#### HEAD.

The anterior portion of the body is called the *head*; it varies greatly in form, and is joined by membrane to the thorax. Usually the hind portion is but slightly narrowed, and enters the anterior part of the thorax; sometimes the part behind the eyes is suddenly narrowed, and constricted, forming the *neck*.

The surface of the head consists of a solid horny plate; above it is frequently marked by a single suture, running transversely between or in front of the antennæ; this is called the *clypcal* or *frontal suture*. The portion in front of this suture, when dilated so as to project over the month, as in many Scarabæidæ, is called the *clypeus*; when small, it is named *cpistoma*, and is sometimes

Orthoptera being terrestrial, and using their wings only as accessaries in progression, while the Pseudoneuroptera are essentially aerial, passing the greater portion of the time on the wing.

membranous, or coriaceous, instead of horny like the rest of the surface. The upper surface is divided into regions, the back part being called the *occiput*, the middle the *vertex*, and the anterior the *front*; on each side are the *eyes*.

The eyes of Coleoptera are very variable in form and shape, and are composed of aggregated small lenses; rarely they are entirely wanting; equally rarely accessory eyes are seen, in the form of one or two simple lenses; they are situated between the compound eyes, on the upper surface, and are called *ocelli*.

The under surface of the head is widely excavated, forming the month; the parts beneath the eyes and behind the mandibles are called the <code>genæ</code>; behind the mouth the region is called the throat, or <code>gula</code>; the suture separating the gula from the <code>mentum</code> (hereafter described) is called the <code>gular suture</code>; from the opening of the mouth may be seen two sutures, which sometimes unite at the medial line, running backwards; these are called <code>buccal sutures</code>; they are of but small interest in classification, but I have made use of their position to define the groups of the sub-family Telephoridæ.

Antennæ.—The antennæ are articulated appendages inserted in front of, or more rarely, between the eyes-usually under the side margin of the front; they vary in form and number of joints, the latter attaining, in our fauna, the minimum in Adranes, of the family Pselaphidæ, in which genus they consist of but two joints; the maximum is reached in certain species of Prionus, of the family Cerambycidæ, where 25—27 joints are seen. number of joints is eleven; the joints nearest the head are usually of denser consistence than the outer ones, which possess a peculiar structure, intended for special sensibility. It consists in an immense number of pores, visible only under a very high magnifying power, and covered by a very delicate transparent membrane. These pores vary in situation in different families, but it is not yet known how far these variations may be used for purposes of classification. Lacordaire has found them of service in grouping the genera of Buprestidæ.

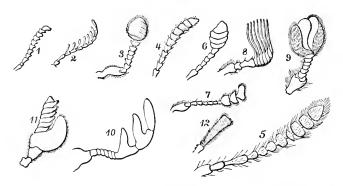
The forms of antennæ may be reduced to the following types:-

1. Filiform, where the joints are cylindrical, and the outer ones are not, or scarcely enlarged; when the outer ones are somewhat more slender, the antennæ are said to be setaceous.

- 2. Serrate, where the joints are triangular and compressed, presenting therefore a serrate outline on the inner margin; the outer joints (usually three in number) are sometimes enlarged, forming a serrate club; the form varies by insensible gradations (as in the family Cleridæ), from the regularly serrate form and the very flattened serrate club, to the small and more compact club of Corynetes; whereby we pass to the next type. Other variations of the serrate type are:—
- a. The joints are short, and very much prolonged on the inner side, giving the *pectinate*, or on both sides, giving the *bipectinate* form; when these prolongations are very long compared with the antenne, the *flabellate* form results.
- b. The joints emit from the base or apex, sometimes on one, rarely on both sides, cylindrical branches; the antennæ are then called ramose; if the branches are very long and flexible, they are called plumose.
- 3. Clavate, where the outer joints are more or less enlarged, but not triangular, nor leaf-like. This is one of the most usual forms of antenne, and its modifications connect insensibly with all the other types; names are therefore necessary for the purpose of more definite description. The principal forms are as follows:—
- a. Moniliform or granose, when the joints, not differing greatly in size, are rounded, resembling a string of beads; this leads to the filiform type.
- b. Clavate, where the outer joints are gradually larger, forming an elongate club.
- c. Capitate, where the outer joints are suddenly larger, forming a compact rounded club; this leads gradually to the last type,
- 4. Lamellate: in this the outer joints are prolonged internally, opposing flat surfaces to each other, which may be brought closely in contact, forming thus a transverse, or rarely rounded, club, supported at one side by the stem of the antennæ. This form obtains in all Searabæidæ.

Antennæ are called *geniculate* when the second joint is affixed so as to make an angle with the first; the following joints continue in the line of the second.

Other names have been applied to modifications in the form of antennæ, but they are of rare occurrence in the literature of the science, and are not used in the present treatise.



ANTENNE: 1. Serrate; 2. Pectinate; 3 Capitate (and also geniculate); 4, 5, 6, 7. Clavate; 8, 9. Lamellate; 10. Serrate (Dorcatoma); 11. Irregular (Gyrinus); 12. Two-jointed antenna of Adranes coecus.

MOUTH.—The mouth of Coleoptera is mandibulate; that is to say, it possesses two pairs of horizontally moving pieces for the purpose of seizing the food. Above it is seen a small piece articulating with the front or epistoma, which is called the upper lip, or labrum.

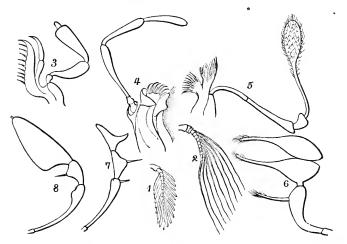
Immediately below the labrum are the jaws, or mandibles; they are of various shapes, but are generally curved and of moderate size; exceptionally, in certain Lucanidæ, they are very long and branched, like the antlers of a deer; at other times, as in certain Scarabæidæ, they are very small and partly membranous. The form of the joint between the mandibles and the head varies somewhat, and has been used by Duval for the purpose of defining some genera of Buprestidæ.

Below the mandibles is a second pair of horizontally moving pieces, called *maxillæ*: they are complex in structure, and are of great moment in classification, and therefore demand a special paragraph.

MAXILLE.—The hind portion or base of the maxillæ is composed of two pieces; the one articulating with the head is called the cardo, the second piece the stipes; attached to the stipes are the appendages, which are normally two lobes and one maxillary palpus; the lobes are varied in form, according to the families and genera, and sometimes one or the other is so small as to be indistinct; the outer lobe is occasionally, as in Cicindelidæ, Cara-

bidæ, and Dytiseidæ, slender, and usually divided into two joints like a palpus, whence in the older books the insects of those families are said to have six palpi. The inner lobe is, by a rare exception, as in most Cicindelidæ, terminated by a movable hook.

The maxillary palpi are usually 4-jointed, rarely 3-jointed, and in the genus Aleochara alone 5-jointed, by the addition of a very minute terminal piece; they vary in form, being filiform or dilated, and are occasionally of great size, as in most Pselaphidæ; sometimes very long and slender, as in most Hydrophilidæ; the last joint is frequently much smaller and more slender than the penultimate, in which case the palpi are called subulate.



ANTENNÆ: 1. Bipectinate; 2. Flabellate. MAXILLÆ: 3. Bembidium; 4. Hydrophilus; 5. Pselaphus. MAXILLÆRY PALPI: 6. Cteuistes; 7. Tmesiphorus; 8. Tychus.

MENTUM AND LIGULA.—Beneath the maxillæ, and between them, is seen a small movable piece called the *ligula*, which supports two articulated appendages called the *labial palpi:* behind them is a large or small corneous plate, forming the floor of the mouth—it is called the *mentum*, and articulates with the lower surface of the head by the *gular suture*, which is rarely effaced; the openings each side of the mentum are called *buccal openings*. The mentum and ligula are very important organs in the system of classification.

The mentum is usually small, or moderate in size, and trapezoidal or quadrate, but frequently of large size, and varies according to the family; rarely it is so large as to close over the buccal openings, and thus conceal the base of the maxillæ; it is frequently, as in Carabidæ and allied families, deeply emarginate in front, with a prominence called a tooth at the middle of the emargination; the presence and form of this tooth are of generic value. In many families, especially those with antennæ of the clavate and serrate types, the mentum appears to be divided into two portions; this results from a piece between the mentum and ligula, called the hypoglottis, and which is usually entirely concealed, coming into view by reason of increased development.

The ligula is either corneous or membranous, usually oblong, pointed, rounded, or emarginate, or even eleft and lobed at the anterior extremity; usually prominent, rarely concealed behind the mentum; near the tip is usually seen on each side a membranous process; these are called paraglossæ, but are frequently wanting. Between the body of the ligula and the mentum are the supports of the labial palpi; these sometimes are largely developed, and in certain Scarabæidæ are entirely united together, forming what appears to be the ligula; the genuine ligula in these cases is almost atrophied, and is concealed behind the corneous plate formed by the labial supports. In the following pages the term ligula is used in both cases, and is to be understood to mean the piece in front of the mentum bearing the palpi, whether it be the ligula proper or some other part.

The labial palpi are usually 3-jointed, but occasionally 2-jointed or even (certain Staphylinidæ) filamentous, and not divided into joints. In the genus Aleochara they become 4-jointed, by the addition of a very minute terminal joint. They vary in form.

#### THORAX.

The second division of the body is called the *thorax*, and consists of three segments which support legs, and which are variously modified as regards size and union in the different orders of insects.

In Coleoptera the first of these segments, the *prothorax*, is separate from the other two, and is freely movable; it consists of a dorsal surface, the *pronotum*, consisting normally of four pieces, which in Coleoptera are never distinct; two pairs of pieces form-

ing the sides of the under surface; and a middle piece, the prosternum, between and in front of the anterior legs. The side pieces are best seen in the Carabidæ; the anterior pair is called the episterna, and the hind pair the epimera. Most frequently the sutures between these pieces, and between them and the pronotum are entirely effaced, so that the dorsal surface and the flanks form a continuous piece; the sutures between the prosternum and the flanks are always distinct, and are called prosternal sutures. The cavities in which are inserted the anterior legs are called anterior coxal cavities, and are either entire when they are inclosed behind by the junction of the prosternum and the epimera, or open, when a space is left protected only by membrane; they are separate when the prosternum extends between them, or confluent when the prosternum is not visible between them

For strengthening the anterior opening of the prothorax which receives the head, one pair of horny plates is included in the membrane; they are called *antecoxal plates*, and are usually invisible without breaking the insect; I have found them very largely developed in the genus Chauliognathus of the sub-family Telephoride.

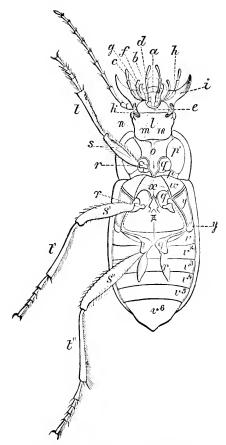
The second segment is called the *mcsothorax*, and in Coleoptera is very closely united with the third segment or the *metathorax*, which is also closely connected with the abdomen; these parts together form the trunk, or main body of the insect.

These two segments support on the inferior surface the middle and hind legs, and at the sides of the dorsal surface the wings.

The dorsal surfaces of these two thoracic segments are covered by the elytra, consequently invisible without dissection; they are called mesonotum and metanotum, and consist each of four pieces, separated by sutures, and named, commencing with the anterior one of each segment, proscutum, scutum, scutellum, and post-scutellum. No use is made of them in classification, except that the small triangular piece, usually visible between the elytra at their base, is sometimes mentioned under the name scutellum.

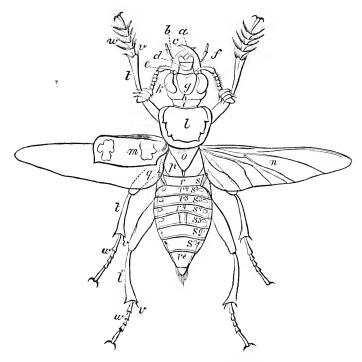
The under surfaces consist of the same pieces as the *prothorax*, viz: respectively, *mesosternum*, with its epimera and episterna, and *metasternum*, with its epimera and episterna; these pieces are distinct, except that rarely the epimera and episterna of the mesothorax are entirely united: the form of the epimera of meso-

thorax is of great importance in classification, according as they reach the middle coxe, or are cut off from them by the junction of the episterna with the metasternum. The epimera of the metathorax are also of importance, being sometimes visible, sometimes covered by the elytra.



UNDER SURFACE OF HARPALUS CALIGINOSUS.

a. Ligula; b. Paraglossæ; c. Supports of labial palpi; d. Labial palpus; e. Mentum; f. Inner lobe of maxilla; g. Outer lobe of maxilla; h. Maxillary palpus; i. Mandible; k. Buccal opening; l. Gula or throat; m, m. Buccal sutures (ought to be more distinct); n. Gular suture; o. Prosternum; p'. Episternum of prothorax; p. Epimeron of prothorax; q, q', q'. Coxæ; r, r, r. Trochanters; s, s', s'. Femora or thighs; t, t', t''. Tiblæ;  $v, v^2, v^3$ , &c. Ventral abdominal segments; w. Episterna of mesothorax (the epimeron is the very portion immediately behind it, and does not touch q' the middle coxa, better represented on the left side of the figure); x. Mesosternum; y. Episterna of metathorax; z. Metasternum.



UPPER SURFACE OF NECROPHORUS AMERICANUS.

a. Mandible; b. Maxillary palpus; c. Labrum; d. Epistoma; e. Antenna; f. Front: g. Vertex; h. Occiput; i. Neck; k. Eye; l. Pronotum (usually called prothorax); m. Elytron: n. Wing; o. Scutellum (of mesothorax); p. Metanotum (or dorsal surface of metathorax); q. Femur or thigh;  $r, r^2, r^3$ , &c. Dorsal abdominal segments;  $s, s^2, s^3$ , &c. Spiracles or stigmata; t, t', t''. Tibia; v. Tibial spurs; w. Tarsi.

WINGS.—The anterior or mesothoracic pair of wings in Coleoptera are horny plates, called *elytra*, and vary greatly in shape
and sculpture; faint traces of nervures are seen in many families
in three or four lines of different sculpture; they usually cover
the dorsal surface of the abdomen, but in many genera of widely
differing families are very much shorter than the abdomen; the
inflexed portions along the sides are called *epipleuræ*. The
elytra are not entirely wanting in any species of our fauna,
though in certain foreign genera of Lampyridæ and Scarabæidæ
the females are destitute both of wings and elytra.

The posterior or metathoracic pair of wings are membranous, and have but few nerves; these are so arranged in most instances

as to form a joint near the extremity, whereby the wing can be folded entirely under the elytra; in some genera with short elytra the wings are extended straight along the dorsal surface of the abdomen. The venation is subject to variation in different genera, but no results of importance for classification have yet been obtained by the study of these organs. Frequently they are wanting, in which case the elytra are usually united elosely, or connate.

Legs.—The first joint of the legs, or that by which they are attached to the body, is called the *coxa*, and is received in appropriate cavities; the anterior coxal cavities are surrounded by the prosternum and adjoining pieces, and are frequently open behind, and rarely in such cases completed by the close apposition of the mesosternum.

The middle coxe are surrounded by the meso- and metasternum, and by the episterna of the mesothorax; when these last do not reach the metasternum the intervening space is occupied by the inner extremity of the epimera of the mesothorax, which are then said to attain the coxe.

The hind coxe are placed between the metasternum and the first segment of the abdomen; the latter extends along the outer edge anteriorly so as to reach the side pieces of the metathorax, though frequently this junction can be seen only on raising the elytra.

The form of the coxe is of the greatest importance in distinguishing the families.

At the outer extremity of the anterior coxæ is seen in some families an accessory piece called a *trochantin*; when the prothoracie breathing pore, or *stigma*, or *spiracle* is visible, it is in the same vicinity. Still more rarely the middle coxæ have a similar *trochantin*.

At the extremity of the coxe is a small piece called the trochanter; it varies in form, being usually situated in the axis of the thigh, and is more or less obliquely cut off; in many families the trochanters of the hind pair are quite prominent at the inner margin of the thighs, and connected with them only at the base.

The first long piece of the legs is called the thigh, or femur; following it is the *tibia*. The form of the legs varies greatly in different families; being either fitted for walking, *ambulatorial*;

digging, fossorial; or swimming, natatorial; in the latter form, the hind legs assume the form of oars in Dytiscidæ and some Hydrophilidæ; or the middle and hind legs become broad, short, and flat, as in Gyrinidæ. At the extremity of the tibiæ are two movable spines, called tibial spurs; rarely, one of these is absent, but frequently both are so small as to be indistinct.

Attached to the tibiæ is a series of from three to five pieces, constituting the foot, or tarsus; the last joint bears two claws, which, by a very rare exception, are sometimes wanting. The genus Phanæus of Sarabæidæ and the family of Stylopidæ are the only examples in our fauna in which this is the case. Between the claws is seen in many species a small appendage, called onychium, which usually bears at its extremity two bristles.

#### ABDOMEN.

The portion of body behind the metathorax is called the abdomen, and consists of a series of rings, the normal number of which is nine, though, by coalescence and disappearance, this number is not visible; these rings are divided into two portions; the dorsal segments, more or less covered by the elytra, and the ventral segments, visible on the under surface. The union between these takes place on the dorsal surface, and is by membrane, except in the last two, which are frequently very closely united.

The breathing pores, or *spiracles*, are situated in the connecting membranes, or in the upper inflexed portions of the ventral segments.

The ventral segments are not always opposed to and connected with the corresponding dorsal segments, but are situated differently in different families, though no use is made of these differences for systematic arrangement.

The anal aperture is between the last dorsal and ventral segments, and above it, in the same fissure, is situated the genital opening; each side of this are horny valves, rarely visible externally, but sometimes of very complex structure constituting the genital armature.

The last dorsal segment is called the pygidium, and the penultimate the propygidium, when they are exposed behind the elytra.

#### OTHER STRUCTURES.

Besides the parts of the body above described, there are certain structures occasionally seen, which, from being used for the discrimination of genera, need our attention.

Stridulating organs, or organs for producing sound, exist in various families, and consist of finely wrinkled surfaces, frequently with a pearly lustre; the sound is produced by friction with some other part in the neighborhood of these stridulating surfaces. The situation of these organs is inconstant; thus among the Searabæidæ they are found in Trox, on the ascending portion of the first ventral segments; in Strategus, on the propygidium, and in Ligyrus on the inner surface of the elytra.

Extensible membranous vesicles are observed in one tribe of the family Malachidæ; there are two pairs, one proceeding from a fissure beneath the anterior angles of the prothorax; the other pair emerging outside, and anterior to the hind coxe.

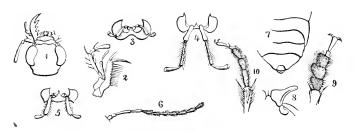
The above sketch of the external anatomy of Coleopterous insects contains all that is necessary to enable the student to comprehend the following pages, and in order to facilitate the determination of the family to which any given species must be referred, I will now attempt to display the relations, partly natural and partly empirical, between the different families recognized in our fauna.\*

This synoptic table of families must, in the present state of science, be to a considerable extent artificial, for it is unwise to suppose that in an animal which passes through a complete metamorphosis, all the highest relations and analogies can be exhibited in any single phase of its development. And although the structure of the perfect insect enables us to refer the species to its proper family, yet in grouping the families together, some reference must be had to the characters seen in the development of the animal. Such information is at present too vague to be of service in the higher investigations of science, and for this

<sup>\*</sup> For the purpose of illustrating to the student modifications of structure used in the tables of this work, I add the following wood-cuts illustrating

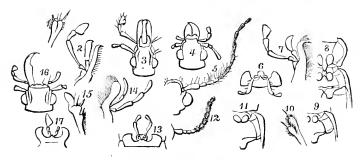
reason, although the families are perfectly defined, the attempts to combine them into higher groups, or to exhibit their relations to each other by characters common to several, have to a great degree failed.

generic differences in the family Cicindelidæ, and in the first and second subfamilies of Carabidæ.



CICINDELID.E.

1. Head of Cicindela; 2. Maxilla of Cicindela; 3. Mentum of Omus; 4. Mentum of Tetracha; 5. Mentum of Cicindela; 6. Antenna of do.; 7. Abdomen of \$\delta\$ of do.; 8. Posterior coxa of do.; 9. Anterior tarsus of Omus (\$\delta\$); 10. Anterior tarsus of Cicindela (\$\delta\$).



CARABIDÆ, FIRST AND SECOND SUB-FAMILIES.

1. Extremity of anterior tibia of Carabus, inner face; 2. Maxilla of Cychrus; 3. Head of Cychrus; 4. Head of Carabus; 5. Anteuna and part of head of Loricera; 6. Mentum of Carabus; 7. Maxilla of do.; 8. Under surface Pasimachus; 9. Under surface of meso-and metathorax of Metrius; 10. Anterior tibia of Metrius; 11. Under surface of meso-and metathorax of Physea; 12. Antenna of Pasimachus; 13. Mentum of do.; 14. Maxilla of do.; 16. Anterior tibia of do.; 16. Head of Promecognathus; 17. Mentum of Pseudom r-phus, showing the indistinct gular suture.

# TABLE OF FAMILIES.

§ Penultimate joint of tarsi not connate with the last joint;

† Hind tarsi with the same number of joints as the middle tarsi,\* which are 5-jointed, unless otherwise stated:

First ventral segment visible at the middle and sides;	4		
First ventral segment visible only at the sides;	2		
2. Legs fitted for swimming;	3		
Legs fitted for running;			
Mesosternum pointed behind, attaining the abdomen;			
Antennæ inserted upon the front.	1. Cicindelidæ.		
Antennæ inserted under the side of the front.	2. Carabidæ.		
Mesosternum not attaining the abdomen.	3. Amphizoidæ.		
3. Eyes two, antennæ slender.	4. Dytiscidæ.		
Eyes four, antennæ short irregular.	5. Gyrinidæ.		
4. Dorsal segments of the abdomen partly membranous	s; 5		
Dorsal and ventral segments entirely corneous; elytra short;			
Abdomen flexile, ventral segments eight.	10. Staphylinidæ.		
Abdomen not flexile, ventral segments five or six.	9. PSELAPHIDÆ.		
5. Antennæ not having a lamellate club, or legs not fossorial. 6			
Outer joints of antennæ forming a lamellate club; legs fossorial;			
Joints of the club fixed.	31. Lucanidæ.		
Joints of the club movable.	32. Scarabæidæ.		
6. Ventral segments free.	7		
Ventral segments five, 1-4 connate; tarsi 4-jointed;			
Antennæ regular, legs not fossorial.	18. COLYDHDÆ.		
Antennæ irregular, legs fossorial.	0. Heteroceridæ.		
Ventral segments 1-3 connate; tarsi 5-jointed, not	lobed beneath;		
Last joint of tarsi very long.	29. Parnidæ.		
Last joint of tarsi moderate.	12. Rhyssodidæ.		
First and second ventral segments connate; ante	ennæ serrate; ta <mark>rs</mark> i		
5-jointed, with membranous lobes beneath;			
Anterior coxæ small, rounded.	33. Buprestidæ.		

<sup>\*</sup> Except in certain males in Families 20 and 21, and one genus of 11. XXII

7.	Anterior coxæ large, transverse. Antennæ more or less serrate, the out	er joints fre	38. Scнizогоі quently enlarg	
	not forming a regular club.			12
	Antennæ clavate, (sometimes very slig	ghtly so);		
	Tarsi 3-jointed; anterior coxe conical	, contiguous	; onychium a c	clubbed
	bristle, wings fringed with long			
	Onychium not distinct.		23. LATHRID	
	Tarsi 4-jointed;			
	Prosternum membranous.		28. Georys	SIDE
	Prosternum corneous:		20. 0201115	C. L. D. L.
	First ventral segment very long.		45. Prini	D 25 %
	First ventral segment very long.		40. 11111	DÆ.
	Head protected by the hood-li		46. Cie	
			40. Си 5. Мусеторна	
	Head not covered by the thora			
	Tarsi 5-jointed; (except in certain ge	nera of Fau	illies 15 and 7	
	Labial palpi approximate at base;		2 11	8
_	Labial palpi very distant at base;			
	Anterior coxæ large, conical, prominen			9
	Anterior coxe conical, cavities confluen		hind.	10
	Anterior coxæ rounded or oval, not pro			11
	Anterior coxæ transverse, not promine			
	Hind coxæ sulcate behind for recepti	ou of thighs	. 27. Byrri	HD.E.
	Hind coxe flat;			
	Antennæ geniculate.		11. Hister	RID.E.
	Antennæ straight;			
	Tarsi more or less dilated, first jo	oint not shor	t. 15. Nitidui	LIDÆ.
	Tarsi not dilated, first joint shor	t.	17. Trogosia	IID.E.
9.	Hind coxe sulcate behind for reception	of thighs.	26. Dermest	TID.E.
	Hind coxe not prominent, last ventral s	egment long	. 12. Scaphid	HDÆ.
	Hind coxe somewhat conical, and pron	-		
	Tarsi lobed beneath.	,	. Мусеторнасі	nr t
	Tarsi not lobed beneath:	20.	MICEIOPHAGI	D.B.
	Eyes finely granulated or wanting.		7. Silpi	*** T
	Eyes coarsely granulated of wanting.		8. Scydmæn	
10		4		
10.	Hind coxe not sulcate behind, simply		24. Отна	HD.R.
	Hind coxe concave behind, for recept	ion or thigh		
	Front scarcely margined.		22. Derodon	
	Sides of the front broadly dilated.		17. Trogositi	
11.	Antennæ geniculate.		11. Histeri	D.E. 3
	Antennæ straight;			
	Hind coxe sulcate behind for recept	ion of thigh:	s. 34. Throsci	D.E.
	Hind coxe not sulcate behind.			
	First and fifth ventral segments v	ery long.	16. Monorom	IID.E.
	* Sub-family Lyctide.	† Sub-fami	ly Diphyllidæ.	
	† Sub-family Peltasticidæ.		ly Murmidiida	
	Tribe Throscini.	, wan		
	Il Title Thiosenter			

## TABLE OF FAMILIES.

Fifth ventral segment not elongated;	
Hind coxæ more or less distant; ventral segments subequal;	
Epimera reaching the middle coxæ, which are distant from	on
anterior ones. 20. Cucujidæ.	
Epimera not reaching the middle coxæ, which are close	t
anterior ones;	
Anterior coxal cavities open behind. 21. CRYPTOPHAGIDÆ	
Anterior coxal cavities closed. Erotylidæ.	+
Hind coxe flat; first ventral segment longer. 14. Phalacridæ	
12. Hind coxæ not sulcate;	1
Hind coxe sulcate for reception of thighs;	
Anterior coxæ transverse or conical.	3
Anterior coxæ globose;	
Anterior coxal cavities closed by mesosternum. 34. Throscide.	t
Anterior coxal cavities open behind;	
Spurs small, ventral segments usually five. 35. Elateridæ	
Spurs large, ventral segments six. 36. Cebrionidæ	
13. Onychium large, hairy. 37. Rhipiceridæ	
Onychium small or wanting;	
Head not constricted behind;	
Epimera of mesothorax attaining the coxe. 39. Dascyllidæ	
Epimera of mesothorax not attaining the coxe. 45. Ptinide.	ţ.
Head suddenly constricted behind. 44. Cupesidæ	
14. Tarsi with membranous lobes; hind coxæ flat. 42. Cleridæ	
Tarsi not lobed beneath; hind coxæ more or less prominent;	
Anterior coxæ long, without trochantin. 43. Lymexylidæ	
Anterior coxe long, with distinct trochantin;	
Ventral segments seven or eight. 40. Lampyridæ	
Ventral segments six (rarely apparently five). 41. Malachide	
Anterior coxæ large, rounded, without trochantin. 45. PTINIDÆ.	Š

<sup>\*</sup> Sub-family Engidæ.

<sup>†</sup> Tribe Lissomini.

<sup>‡</sup> Sub-families Ptinidæ and Anobiidæ.

<sup>§</sup> Sub-family Bostrichidæ.

	† Hind tarsi* with a less number of join	ats than the middle	
tars	si; 4-jointed.		
Ant	erior coxal cavities closed behind.	2	
Ant	erior coxal cavities open behind.	3	
	Carsal claws simple;		
	Ventral segments five;		
	Penult. joint of tarsi not spongy beneath.	47. Tenebrionidae.	
	Penult. joint of tarsi spongy beneath.	50. LAGRIIDAE.	
	Ventral segments six.	48. Aegialitidae.	
ľ	'arsal claws pectinate.	49. CISTELIDAE.	
	lead not strongly and suddenly constricted behi	nd. 4	
	lead strongly constricted at base.	6	
	Middle coxe large, conical;	5	
	Middle coxe not very prominent; head horizontal;		
	Penultimate joint of tarsi cylindrical;	,	
	Antennæ received in grooves.	51. Monommidae.	
	Antennæ free.	53. Рутпірав.	
	Penult. joint of tarsi with a membranous lobe.	54. Mycteridae.	
5. I	ateral margin of prothorax distinct.	52. MELANDRYIDAE.	
I	ateral margin of prothorax wanting.	55. Oedemeridae.	
	lead gradually narrowed behind the eyes.	56. CEPHALOIDAE.	
F	Head suddenly narrowed behind;		
	Lateral suture of prothorax wanting.	7	
	Lateral suture of prothorax distinct; base as w	ide as the elytra:	
	Antennæ filiform;	,	
	Hind coxe not laminiform.	52. MELANDRYIDAE. †	
	Hind coxe laminiform.	57. MORDELLIDAE.	
	Antennæ flabellate.	61. Rhipiphoridae. ‡	
7. 1	Carsi perfect with distinct claws; eyes normal;		
	Prothorax at base narrower than the elytra;		
	Hind coxe not prominent.	58. Anthicidae.	
	Hind coxæ large, prominent;		
	Claws simple.	59. Pyrochroidae.	
	Claws cleft or toothed.	60. MELOIDAE.	

61. Rhipiphoridae.

62. Stylopidae.

Prothorax at base as wide as the elytra.

Tarsi without claws; eyes pedunculated.

<sup>\*</sup> Except in Stylopidae, which is an entirely anomalous family.
† Tribe Scraptiini.
‡ Tribe Evaniocerini.



# CLASSIFICATION

OF THE

# COLEOPTERA OF NORTH AMERICA.

# FAM. I.—CICINDELIDAE.

MENTUM deeply emarginate; ligula small, concealed; base of labial palpi free.

Maxillæ with the outer lobe biarticulate, the inner usually

terminated by an articulated hook.

Antennæ inserted on the front, above the base of the mandibles.

Prothorax with the epimera and episterna distinct. Metasternum pointed behind, reaching the abdomen.

Abdomen with the three anterior segments connate; 6-articulated in the female, usually 7-articulated in the male.

Legs slender, formed for running; posterior coxæ dilated internally, not reaching the margin of the body; tarsi 5-jointed.

The species composing this family are the most predaceous of Coleoptera, and in some of them activity as well as brilliancy of coloring is carried to its greatest perfection. The genera found in the United States are all terrestrial, but within the tropics are many which alight only on leaves of trees. More full descriptions of the habits will be given below, under the particular groups.

The head is large; the mandibles long and sharply toothed; the maxillæ have two lobes; the interior is armed with spines on its inner margin, and in our genera is terminated by an articulated hook, which is wanting in some foreign genera; the mentum is large, deeply emarginate with the lateral angles acute, armed in the middle with a large acute tooth, and is separated from the gula by a distinct suture; the ligula is small, hidden under the mentum tooth; the base of the labial palpi is free and prominent, appearing like a separate joint.

The antennæ are inserted upon the front, above the mandibles; they are always 11-jointed, with the four inferior joints glabrous and polished, the others pubescent; they are usually filiform, rarely thickened externally.

The thorax is usually cordate, sometimes cylindrical, rarely quadrate; the dorsal surface is marked by an anterior and posterior transverse impression, and a dorsal line connecting the two transverse impressions; the lateral margin is not well defined, as in most of the genera of the next family; the prosternum is narrow, not produced behind; the episterna and epimera are distinctly defined by sntures, and the anterior coxæ are globular, with the cotyloid cavities entire.

The mesosternum is obliquely declivous, deeply emarginate behind; the epimera and episterna are sometimes connate, without suture, and sometimes distinct; in the latter case the suture runs diagonally, and the epimera extend to the middle coxæ, which are globular.

The metasternum is pointed in front and behind, reaching the middle of the second ventral segment; the epimera are large in the winged species, small in the apterous ones; the episterna are small, and frequently indistinct. The posterior coxæ are triangular, dilated and prominent internally, concave behind for the motion of the thighs; they do not extend to the margin of the body, but are inclosed by the side pieces of the metathorax, and the first ventral segment.

The elytra cover the body, and are rounded at the tip; sometimes they are connate, and sometimes (as in Amblychila) embrace widely the flanks of the abdomen; the wings are usually well developed, sometimes wanting.

The legs are slender, usually long; the tibiæ have two distinct terminal spurs; the tarsi in our genera are filiform, the first three joints of the anterior ones of the male usually dilated, and densely clothed with hair beneath. The claws are acute, and simple.

The abdomen is composed in the female of six ventral segments; in the male the sixth segment is usually deeply emarginate, and a small seventh segment is thus seen, but in Amblychila the abdomen is alike in both sexes; the three anterior segments are closely connate, the first is visible only on the sides, the second is acute in the middle, and reaches the point of the metasternum; the others are movable. The dorsal segments, as first observed by Dr. Schaum,

are eight in the male and seven in the female, the seventh in the latter sex being elongated so as to conceal the eighth.

This family is divided by Lacordaire into five tribes, of which but three are found within the limits of the United States, and are distinguished in the following manner:—

A. Third joint of maxillary palpi longer than the fourth.

First joint of labial palpi very short.

Manticorini.

First joint of labial palpi elongated.

Megacephalini.

B. Third joint of maxillary palpi shorter than the fourth. CICINDELINI.

#### Tribe I.-MANTICORINI.

The species of this tribe are apterous, with the elytra connate; the eyes are small, and in this respect they differ from all other members of the family; the first joint of the labial palpi is very short, and hardly extends beyond the emargination of the mentum.

These insects are probably crepuscular or nocturnal in their habits. I am informed by Dr. Wm. A. Hammond, that specimens of Amblychila were found by him running about in the early morning of cloudy days. The only specimens of Omus found by me were drowned in a rain-pool near San Francisco. In Amblychila the usual differences between the sexes fail; the tarsi of the male are not dilated, and the abdomen has only six ventral segments. In Omus the anterior tarsi of the male are widely dilated, and the 7th ventral segment is distinct.

Two genera of this tribe are found in our country, and both are peculiar to it. Amblychila, having wide epipleuræ, occurs in Kansas, New Mexico, and probably in California. (1 species.)

Omus, having narrow epiplenræ, is found in California, Oregon, and Washington Territory. (3 species.)

#### Tribe II .- NIEGACEPHALINI.

The native species of this tribe are but two in number, and belong to the genus Tetraeha. *T. virginica* is crepuscular in its habits; *T. carolina* extends from the Atlantic to the Pacific coast.

#### Tribe III.—CICINDELINI.

Of this tribe the species are very numerous. Those of our fauna belong, with one exception, to Cieindela, and many of them are seen on roads exposed to the sun, flying actively on the least alarm, and again alighting at the distance of a few paces. The

species are more numerous in the temperate and warm regions of the country, and gradually disappear towards the north, until in the latitude of Lake Winnipeg but two or three species remain.\*

Our species all belong to the genus Cicindela.†

The larvæ of Cicindela, like the perfect insects, live in holes, which they excavate with their jaws and feet, in sandy localities, using, as stated by Westwood, their broad head for bringing the particles to the surface. They are easily procured in spring by placing a fine straw down the hole, when the larva will gradually push it out, and rising to the surface, may be captured. They are whitish grubs, with a large, flat, metallic-colored head, with long toothed mandibles; the prothoracic segment is protected above by a large, lunate, corneons sente; the ninth segment has two dorsal hooks; the tarsi are terminated by two claws. They lie in wait for prey at the mouth of the burrow, the head and thorax closing the opening, and seize with the long mandibles any insect which approaches within reach.

# FAM. II.—CARABIDAE.

Mentum deeply emarginate; ligula more or less prominent, usually furnished with paraglosse.

Maxillæ with the outer lobe palpiform, usually biarticulate,

the inner usually curved, acute, ciliate with spines.

Antennæ inserted behind the base of the mandibles, under

a frontal ridge.

Prothorax with the epimera and episterna usually distinct.

\* For a synopsis of the native species of Cicindela, see Transactions of the American Philosophical Society, vol. XI.

† While this sheet is passing through the press, Mr. Ulke has kindly loaned me a female specimen of Dromochorus Pilatei Guérin, which he has recently received. It has not the third joint of the labial palpi any thicker than in ordinary Cicindelae, but differs, however, by the wings being entirely wanting. In several species of Cicindela, the wings are very feeble, and in that case the humeral angles of the elytra are not distinct, so that the form of Dromica is assumed. I am disposed, therefore, to consider D. Pilatei as constituting merely an aberrant group of Cicindela, in the neighborhood of C. dromicoides, and our own C. celeripes. It is a black insect, about half an inch long, without lustre. The eyes are moderately large, and the front is scarcely concave, with but few wrinkles. The elytra are convex, oval, narrowed in front, and covered with not very deep bluish punctures; there is no sutural spine, and the apex is entirely without serrature. The tarsi are more pubescent than in other species. The labrum is armed with three acute teeth. It is found in Texas.

Metasternum pointed behind, usually meeting the second ventral segment.

Abdomen with the three anterior segments connate; usually with six, rarely (Brachinini) with seven or eight ventral segments; the first visible only at the sides.

Legs slender, formed for running; anterior and middle coxe globular, posterior dilated internally, not attaining the margin of the abdomen (except in Trachypachini); tarsi 5-jointed.

One of the most numerous families of Coleoptera, and generally predaceous in character, although some species of Amara, Zabrus, and Harpalus also use vegetable food. The larva of *Omophron labiatum* is also very destructive to young corn in our Southern States.

The characters above mentioned being almost the only ones common to all the members of the family, it will be unnecessary to enter into a detailed description of the different parts of the body, as I have done in the preceding family.

Numerous efforts have been made to indicate a rational distribution of the genera, and the attempts commenced by Latreille and Bonelli, and successively improved by the suggestions of Dejean, Erichson, Schiödte, Lacordaire, and myself, have finally, in the expert hands of Schaum, assumed a form in which probably permanent results have been attained.

Following, then, the suggestions of these later authors, with still further modifications, the whole family may be divided into three series, which might be almost termed sub-families.

Middle coxæ distant;

Epimera of the mesothorax reaching the coxæ. Carabidæ. Epimera of the mesothorax not reaching the coxæ. Harpalidæ. Middle coxæ contiguous. Ozænidæ.

# Sub-Family I.—CARABIDAE (genuini).

Epimera of the mesothorax extending to the coxæ; mesosternum broadly separating the middle coxæ.

In this sub-family are contained nearly all the anomalous forms of Carabidæ. They consequently may be arranged in several tribes, among which are to be found the osculating points with the preceding and following families, as well as the direct lines of affinity to the second and third sub-families. No general characters except the one above given will apply to all of them, but the special

characters of the tribes found in the United States may be thus expressed:—

Gular suture distinct in all of our tribes.

emarginate.

Antennæ inserted under frontal plates; anterior tibiæ palmate.

	VIII. SCARITINI.
Antennæ with the base free; anterior tibiæ not	palmate. 2
2 Mesosternum covered; scutellum wanting.	I. Omophronini.
Mesosternum visible; scutellum distinct.	3
3 Anterior coxal cavities closed behind by the p	prosternum. 4
Anterior coxal cavities open behind.	7
4 Maxillæ covered at the base.	VII. PROMECOGNATHINI.
Maxillæ exposed at the base.	5
5 Prosternum produced behind.	VI. METRIINI.
Prosternum not produced behind the coxæ.	G
6 Antennæ ordinary; anterior tibiæ slightly em	arginate. II. ELAPHRINI.
Antennæ verticillate, basal articulation promin	nent; anterior tibiæ strongly

7 Posterior coxæ attaining the margin of the body; mesosternum not carinate.

IV. Trachypachini.

III. LORICERINI.

Posterior coxe normal; mesosternum carinate anteriorly. V. Carabini.

#### Tribe I.—OMOPHRONINI.

This tribe consists of but a single genus, remarkable for its round convex form and the absence of scutellum.

The head is broad, pointed in front; the labrum flat, the mandibles also flattened above; the clypeal suture makes an angle between the antennæ; the latter are filiform, with the four basal The palpi are filiform. The mentum is deeply joints smooth. emarginate, toothed in the middle, with the gular suture distinct; the anterior coxæ are surrounded by the prosternum, which is broad, and prolonged behind so as to cover the mesosternum; the side pieces of the latter are very transverse, and the epimera reach inwards to the coxal cavity; the episterna of the metathorax are short and broad, without visible epimera. The striæ of the elytra are beyond the usual number; in our species there are fifteen, including the marginal. The anterior tibiæ are obliquely sulcate at the apex internally, one spine is apical, the other is placed above the apex. The first joint of the anterior and middle tarsi of the males is strongly dilated in our species, and covered with hair beneath.

The species are found in wet sand, near the margin of streams or ponds; two are found on the Pacific, four on the Atlantic slope of the continent.

#### Tribe II.—ELAPHRINI.

In this tribe, as restricted by me, there are but two genera, both of which are represented in North America. Elaphrus having the eyes large and prominent, and the elytra with rows of large, shallow, occillate foveæ; Blethisa having the eyes small, the elytra with nine dorsal striæ, with a few scattered foveæ.

The head is pointed in front; the clypeal suture straight; the antennæ filiform, with four glabrous joints; the mentum is deeply emarginate, with a bifid tooth, gular suture distinct; the anterior coxæ are entirely surrounded by the prosternum, which is not prolonged behind. The mesosternum is declivous; the side pieces are diagonally divided, and the epimera reach the coxæ; the episterna of the metathorax are short and broad, without visible epimera. The wings are well developed. The anterior tibiæ are obliquely sulcate at the apex internally, somewhat emarginate, with the inner spur considerably above the apex; the anterior tarsi of the males have three or four joints dilated, and covered with hairs beneath, and in Blethisa quadricollis the anterior thighs of the same sex are armed beneath with an acute tooth.

Species of both genera are found on both sides of the continent. Elaphrus has considerable resemblance to Cicindela in form and habits, and is found running on mud-flats near streams or pools. Blethisa occurs also near water (usually marshes), under stones.

#### Tribe III.-LORICERINI.

This tribe contains two genera, of which but one is found in North America, and its affinities are very differently represented by authors. By most of them it is placed near Panageus, the form of the anterior tibiæ, which is altogether that of the ordinary Carabidæ of the second series, being considered to outweigh the other characters.

From all other Carabidæ the species of the present tribe differ in having the antennæ inserted so as to expose the globular base of the first joint; the latter is very long; four joints are glabrons, and the 2—6 are furnished with long diverging bristles; the mandibles are flattened; the base of the maxillæ is very prominent, and armed, as in Nebria, with long bristles; the palpi are long and slender; the mentum is emarginate, with a bifid tooth

and distinct gular suture. The head is strongly constricted behind the eyes into a neck; the elypeal suture is transverse. The anterior coxæ are entirely enclosed, and the prosternum is not prolonged behind; the mesosternum is declivous, the side pieces are diagonally divided, and the epimera reach the coxæ; the episterna of the metathorax are moderately broad; their epimera are visible in the Maderan genus Elliptosoma, but are not seen in Loricera. The elytra have fourteen striæ, and a few impressed foveæ. The anterior tibiæ are very slightly thickened, deeply sulcate and emarginate internally, with the inner spur far above the apex. Three joints of the anterior tarsi of the males are dilated, covered with a brush of hairs beneath.

Several species are found near the Pacific coast; one also occurs in Nova Scotia and at Lake Superior, which does not appear to differ from the European *L. pilicornis*.

#### Tribe IV .- TRACHYPACHINI.

This tribe is represented by two genera. Trachypachys, of which one species is found in Northern Europe, and another on the Pacific coast, north of Columbia River, and Sistolosoma, found in Chile.

It differs from all other Carabidæ by having the posterior eoxæ, though not unusual in size, extended to the margin of the body, so as to separate the side pieces of the metathorax from the first The form of body is that of a small Harpalide. ventral segment. The head is rather blunt, the eyes not prominent, the clypeal suture transverse; the antennæ are shining and glabrous, having only a few hairs about the sides of the outer joints. The palpi are filiform; the mentum deeply emarginate, with bifid tooth and gular suture distinct; the anterior coxe are not closed behind; the prosternum is produced behind the coxæ, and passes over the mesosternum; the sutures between the epimera and the prosternum are not visible; the mesosternum is declivous, not earinate in front, though, by an error of observation, I have stated in the Pacific Railroad Reports and Explorations, vol. XI., that it is formed as in Notiophilus; the side-pieces are diagonally divided, and the epimera reach the coxe; the episterna of the metathorax are long and narrow, without visible epimera. Elytra with striæ composed of small punctures, visible only near the suture. The anterior tibiæ thickened gradually, and armed with short spines externally, obliquely sulcate and slightly emarginate internally at the apex,

with the inner spur above the apex; anterior tarsi of the male with two joints moderately dilated.

By this group is made a transition to the following family, Amphizoidæ.

#### Tribe V.—CARABINI.

A numerous tribe, containing some of the largest and most beautiful species of the family, and also some very small ones; they agree in habits, being found in shady situations in forests, under stones and pieces of wood, or under leaves. They also agree in the following characters:—

The prosternum and prothoracic side pieces do not entirely surround the anterior coxe, whereby the latter are in part protected by concavities of the mesosternum, which is carinate at the middle anteriorly, and frequently concave beneath; the prosternum (except in Cychrus) is more or less produced behind the coxe, so as sometimes almost to cover the mesosternum; the anterior tibiæ are somewhat grooved internally at the apex; the spurs are either both terminal, or, from the apex being obliquely truncate, the inner one is above the apex.

The characters in this group are otherwise quite variable; the labrum is emarginate, toothed, or even deeply bilobed; the mandibles are sometimes toothed, sometimes simple, in Cychrus more elongate than usual; the maxillæ of the same genus are also much prolonged; the palpi are sometimes very much dilated; the mentum is deeply emarginate, with the gular suture distinct. The elypeo-frontal suture is straight, and usually distinct, but is wanting in the European genus Procerus. The antennæ have usually four basal smooth joints, but in Nomaretus there are only two.

The outer joints are usually entirely pubescent, but in certain species of Calosoma are so only at the margins.

The sutures of the under surface of the prothorax are distinct, the epimera project along the posterior part of the coxæ, but do not reach the prosternum; the coxal cavity is thus open for a greater or less extent at the hinder part. I cannot agree with Schanm\* that this is owing to a simple depression of this hind margin; and, moreover, the fact that it accompanies the carinate mesosternum is sufficient to mark it as a natural character, even

<sup>\*</sup> Ins. Deutschl., I. 60.

though it should separate genera so similar in sculpture as Opisthius and Elaphrus.

The sculpture of the elytra is very variable; sometimes (Nebria) the striæ have the normal number (nine), usually, however, they are more numerous; in Notiophilus the inner striæ are separated from the outer ones by a very wide smooth space; in Opisthius the sculpture consists of rows of shallow occllate foveæ; in certain species of Cychrus and Carabus the elytra are ornamented with rows of tubercles.

Our genera may be thus arranged:-

- A. Head triangular; prosternum prolonged behind the anterior coxæ; epipleuræ narrow.
  - a. Mentum bidentate;

Anterior tibiæ obliquely truncate. Notiophilus.

Anterior tibiæ with both spurs terminal; elytra with ocellate foveæ.

Opisthius.

Elytra with nine striæ, the outer one frequently obliterated; (inner spur of anterior tibiæ not quite terminal);

Maxillæ armed beneath with bristles.

Maxillæ armed beneath with spines.

Leistus.

b. Mentum tooth simple (elytra with numerous striæ);

Third joint of antennæ strongly compressed. Calosoma. Third joint of autennæ cylindrical. Carabus.

B. Head elongate; labrum deeply bilobed; epipleuræ very broad.

Antennæ with two glabrous joints; striæ of the elytra not exceeding thirteen. Nomaretus.

Antennæ with four glabrous joints; striæ of the elytra numerous, sometimes replaced by tubercles.

CYCHRUS.

Of these genera, Opisthius contains a single species, found in Oregon and at Mackenzie River; Leistus one species from Russian America, and is also found in Europe. Nomaretus is confined to the Atlantic slope; the other genera are widely diffused.

#### Tribe VI.-METRIINI.

This tribe contains but a single Californian species (*Metrius contractus* Esch.), of singular form, found under stones in forests. The head somewhat obtuse, the clypeal suture transverse, the eyes small, not prominent; the mandibles are trigonal, concave externally, as in most Carabidæ; the antennæ have four glabrous joints. The mentum is deeply emarginate, with a bifid tooth; gular suture distinct; palpi moderately stout. Anterior coxæ en-

tirely enclosed, prosternum prolonged behind; mesosternum small, deeply depressed, side pieces diagonally divided, epimera reaching the coxæ; metasternum very short, side pieces broad, with distinct epimera. Elytra connate, with very faint striæ, the external ones entirely obliterated. Anterior tibiæ gradually thickened, hairy externally, deeply sulcate and emarginate near the apex internally, with the inner spur remote from the apex. Middle tibiæ pubescent; posterior tibiæ pubescent internally. Anterior tarsi of the male with two dilated joints densely covered beneath with hair.

The genus Metrius is placed by Schaum in the preceding tribe, which he defines as having the mesosternum carinate in front. Such is not the ease with this genus, which it therefore becomes necessary to remove. It cannot certainly enter any other tribe known to me, and I have therefore been compelled to separate it as distinct.

#### Tribe VII.—PROMECOGNATHINI.

This tribe is represented in the United States by a single Californian species (*Promecognathus lævissimus*). It is an elongate, shining insect, with entirely smooth elytra, and long, narrow mandibles.

The head is narrow, with the eyes small, and the elypeal suture transverse; the mandibles are very long, slender, and decussating; the labrum is bisinuate; the mentum is very transverse, filling up the fissure usually seen each side of the gular suture, so as to cover the base of the maxillæ (as in Scarites), not deeply emarginate, with a large medial tooth; gular suture distinct. Four joints of the antennæ are smooth, the first much longer and stouter than the others; the remaining joints are less densely pubescent than usual. The anterior coxæ are entirely enclosed; the prosternum is not The trunk is pedunculated in front. produced behind. mesosternum is declivous, the side pieces diagonally divided, with the epimera extending to the coxe. The metasternum is very short, the side pieces small, without visible epimera. The elytra are connate, without dorsal striæ, and the marginal stria and its punctures are very close to the margin. Anterior tibiæ gradually thickened, obliquely sulcate and deeply emarginate internally, with the inner spur remote from the apex. Middle tibiæ pubescent. The tarsi are not dilated in the male.

I have been compelled to dilate upon this, and some other tribes

represented by a few species of great rarity, beyond what is to be desired in an elementary work like the present; but I trust it may not be without profit to the student, for upon a correct appreciation of the respective importance of the characters given depends the rational arrangement of the entire family of Carabidæ; the tribes in question are precisely those of the most anomalous character, and concerning the affinities of which the most diverse opinions have been expressed. The present genus, for instance, was associated by Chaudoir with Stomis, with which it has no character in common, except the elongate mandibles; Lacordaire has adopted the group Stomides as established by Chaudoir; Schaum has placed the present genus in the group Broscidæ,\* from which, however, it departs both by the absence of the epimera of the metathorax, and by the epimera of the mesothorax reaching the coxe. seems most natural to consider it as the passage from the preceding to the following tribes. I found the insect under stones at an elevation of 2,500 to 3,000 feet, near San Jose, California.

## Tribe VIII.—SCARITINI.

Readily distinguished from all other tribes of this sub-family by the anterior tibice being more or less produced at the apex, and toothed, giving the form called palmate, and by the abdomen being pedunenlate anteriorly.

The head is pointed in front, from the mandibles being longer than usual; the latter are sometimes strongly toothed internally, sometimes slender and unarmed (Ardistomis, Aspidoglossa). The eyes are small; the edge of the front is dilated over the insertion of the antennæ, the base of which is capable of being received in a hollow extending below the eyes; two basal joints and the base of the third are glabrous; the first joint is elongate in some (Scarites, Pasimachus), short in others. The mentum affects two different forms; when the first joint of the antennæ is long, the base of the mentum covers the base of the maxillæ, filling the fissure each side of the gular suture; when the basal joint of the antennæ is short, the base of the maxillæ is uncovered, as in most Carabidæ; the mentum is frequently trilobed, with the lateral lobes hardly longer than the medial one. The maxillæ sometimes (Pasimachus) have

<sup>\*</sup> But has corrected this error on a subsequent page; vide Ins. Deutschl., I. 773.

the inner lobe rounded at the apex, entirely destitute of the usual terminal hook.

The thorax is usually much narrowed behind, without posterior angles, the chief exception being in Pasimachus, where the angles are distinct; the margin is frequently obsolete; the posterior coxe are entirely enclosed. The trunk is pedunculate in front, the mesosternum declivous, the side pieces diagonally divided, with the epimera reaching the coxæ; the side pieces of the metathorax are sometimes short, without epimera (Pasimachus), sometimes long, with distinct epimera. The anterior tibiæ are dilated, produced at the apex, and frequently toothed externally; they are deeply emarginate internally, with the inner tooth remote from the apex. The anterior tarsi of the male are rarely dilated.

This tribe contains two groups, as follows:-

# Group I .- Scarites.

Basal joint of antennæ very long; base of maxillæ covered.

These are insects of moderate or large size, found under stones, or (Pasimachus elongatus Lec.) running on the ground. The genus Pasimachus is confined to North America; most of the species are margined with blue.

Maxillæ rounded at tip; hind angles of thorax distinct. Maxillæ hooked; posterior angles of thorax none.

Pasimaches. SCARITES.

#### Group II .- Clivinae.

Basal joint of antennæ not elongated; base of maxillæ exposed. Species of small size, mostly found in moist places, though some occur under bark of trees.

Ligula not prolonged into a point. Ligula prolonged.

Dyschirius.

Lateral lobes of the mentum entire.

Mandibles slender, prolonged; clypeus truncate. Mandibles flat, acute; clypeus emarginate. Mandibles flat, acute; clypeus not emarginate. Lateral lobes of the mentum emarginate.

Ardistomis. Aspidoglossa. CLIVINA. Schizogenius.

In Ardistomis and Aspidoglossa the anterior tarsi are dilated, but more strongly in the males than in the females. These two genera do not occur on the Pacific coast; the others are widely Acephorus Lec. is suppressed, as not sufficiently

distinct from Dyschirius. The head in Schizogenius is remarkably sculptured, with deep longitudinal grooves.

# Sub-Family II.—OZÆNIDAE.

Mesosternum very narrow; middle coxæ contiguous.

On this single character I have separated as a sub-family two small tribes. They differ from each other by the form of the mesothoracic epimera, which in Ozænini reach the coxæ, and in Pseudomorphini do not. Nevertheless, these groups are related, and the transition is clearly shown by Physea, which, with all the essential characters of Ozæna, has the dilated frontal plates and the excavated femora of the other tribe.

I have observed certain anomalies in the form of the eyes in these tribes, which I do not find in other Carabidæ.

In Ozena the eyes are truncated behind, and in Physea even emarginated by the inflated portion of the sides of the head. In Pseudomorphus the eyes are distinctly angulated on the outer margin, where they are limited by the corneous under-surface of the head, so as to be confined entirely to the upper surface.

#### Tribe I.—OZÆNINI.

The species of this tribe differ from all the preceding genera in having the mesosternum very narrow, so that the middle coxæ are almost in contact. There are considerable differences in other respects between the two genera before me, neither of which have yet been found within our limits, though either may be hereafter discovered in Texas.

In Ozæna the antennæ are inserted as usual, slightly thickened externally, with four basal joints more smooth than the rest; the legs are not compressed, the anterior tibiæ deeply emarginate internally, with the upper spur represented only by a few bristles; the mentum is broad, with the middle lobe nearly as long as the lateral portions; the gular suture not very evident.

In Physea the sides of the front are broadly dilated, and the antennæ are inserted under these plates; the antennæ are filiform, with smooth joints, loosely clothed with hair. The mentum is deeply emarginate, with the middle tooth moderate in size; the gular suture not very evident. The legs are compressed, with the

thighs deeply excavated beneath; the anterior tibiæ are but slightly emarginate internally; the upper spur is a single bristle.

In all the genera of this tribe the margin of the elytra at the point where the posterior curvature commences is interrupted by an oblique ridge marked with a furrow, at which the epipleura suddenly ceases. Dorsal striæ are wanting; the submarginal occllate punctures are few, and not distinct. The suture between the epimera and episterna of the prothorax is not distinct. The side pieces of the mesosternum are diagonally divided, and the epimera reach the coxæ; the side pieces of the metathorax are long and very narrow, with the epimera larger than usual.

The species of Ozena, as noticed by Lacordaire, eject from the extremity of the abdomen, with explosive force, a pungent fluid, in a manner similar to Brachinus.

#### Tribe II.—PSEUDOMORPHINI.

This tribe, of which most of the species are found in Australia, has but a single representative (*Pseudomorphus excrucians* Kirby; *Drepanus Lecontei* Dej.) in our country; it is one of the rarest of our Coleoptera, and is found in Georgia and Carolina.

The genera of this group are among the most anomalous of the family, and at first sight would not be considered as belonging to it. Our species has almost the appearance of Ips; other genera resemble Gyrinus in form.

The mentum is entirely connate without suture with the gula, a character otherwise found in only one tribe of the first sub-family (Siagonini), foreign to North America. The mesosternum is extremely narrow, as in Ozenini, so that the middle coxe are in contact; the episterna are large, the epimera very small, and do not reach the coxal cavity; the episterna of the metathorax are long, with distinct epimera.

The sides of the front are dilated, and the antennæ are inserted beneath the dilatation; three basal joints are smooth in our species; the mentum is deeply emarginate, without gular suture.

The legs are somewhat compressed, the femora are deeply excavated beneath; the anterior tibiæ feebly emarginate, with the upper spur remote from the apex.

The anterior coxæ are very narrowly enclosed behind, and the prosternum is somewhat prolonged; the sutures between the pro-

sternum and episterna are nearly effaced. The hind coxæ are small, contiguous, and separate the metasternum from the middle of the abdomen.

# Sub-Family III.—HARPALIDAE.

Epimera of the mesothorax not extending to the coxæ; mesosternum broadly separating the middle coxæ.

In this sub-family is contained the greater number of species of Carabidæ. But few striking anomalies exist among them, and the tribes, with few exceptions, are connected together by insensible modifications of structure, so that all attempts to isolate them distinctly have thus far proved unsatisfactory.

The following characters are useful in enabling the student to recognize genera belonging here:—

The eves are usually present, rarely (Anophthalmus and Anillus) wanting. The mentum is deeply emarginate, sometimes with, sometimes without a medial tooth; the gular suture is always distinct, and the base of the maxillæ never covered; the inner lobe of the maxillæ is always hooked, the outer lobe biarticulate (except in the European genus Callistus); the sutures of the under surface of the prothorax are always distinct; the prosternum rarely is prolonged; the anterior coxe entirely enclosed. The mesosternum always separates the middle coxæ, is declivous, sometimes concave; the side pieces are rarely diagonally divided, usually with epimera very narrow and posterior, never extending to the coxæ (the epimera and episterna are entirely connate, without suture, in the foreign Graphipterini); the mesosternum attains the middle of the second ventral segment (except in the foreign tribe Orthogonini, where the posterior coxe are contiguous, and separate the metasternum from the abdomen), and is pointed behind. The abdomen consists of six ventral segments, except in the tribe Brachinini.

The anterior tibic are always deeply emarginate internally, with the upper spur remote from the apex, sometimes slightly prolonged at the apex; the tarsi are frequently dilated in the male, differently in different groups and genera. The ungues are sometimes serrate, but more frequently simple.

The elytra have never more than nine dorsal and a marginal stria, adjacent to which is a row of occilate punctures (except in Panagæini); there is also usually a short basal stria by the scutellum,

or between the first and second striæ; the interval between the second and third striæ is usually marked with one or more deep punctures. The apex of the elytra is truncate, sinuate, or rounded.

The numerous genera found in the United States indicate the following tribes, which, with the exception of the first four and the last, are separated by very indistinct and indefinite characters:-

Abdomen with seven (?) or eight (?) ventral segments. I. Brachinini. Abdomen with six ventral segments in both sexes;

A. Elytra without ocellate punctures (paraglossæ wanting).

II. PANAGÆINI.

- B. Elytra with ocellate marginal punctures;
  - A. Paraglossæ wanting; antennæ much compressed, or moniliform; anterior tibiæ dilated;

Elytra entire.

III. MORIONINI.

- Elytra truncate.
- IV. HELLUONINI. B. Antennæ filiform, or nearly so; paraglossæ free or connate;
  - a. Head with a slender neck; antennæ with the first joint elongate; elytra truncate. V. DRYPTINI.
    - b. Antennæ with the first joint not elongate, joints 1-3 glabrous;\* Elytra truncate or rounded; head usually with a slender neck; ligula free at the apex. VI. ODACANTHINI.

Elytra truncate; neck either indistinct or moderately slender; ligula not free at the apex.

Elytra obliquely sinuate; abdomen not pedunculated; Anterior tarsi of & with two series of papillæ.

VIII. PTEROSTICHINI.

Anterior tarsi of & densely spongy-pubescent; Labrum emarginate and impressed. IX. LICININI. Labrum not impressed. X. CHLÆNIINI.

- c. Antennæ with the first joint not elongate; joints 1-4 glabrous; Elytra rounded; abdomen pedunculated. XI. Broscini.
- d. Antennæ with the first joint not elongated, third joint more or less pubescent;

Anterior tarsi of & (?) with one joint dilated

XII. STENOMORPHINI.

Anterior and middle tarsi of & with four joints or none XIII. HARPALINI.

Anterior tarsi of 3 with two joints obliquely dilated; Palpi with the last joint cylindrical, truncate.

XIV. PATROBINI.

Palpi with the last joint conical acute. XV. TRECHINI. Palpi with the last joint small subulate.

XVI. BEMBIDIINI.

<sup>\*</sup> Except in certain foreign species of Pterostichini, and in Trechicus.

#### Tribe I.—BRACHININI.

The increased number of ventral segments (seven in the female, eight in the male) will readily distinguish the members of this tribe. Additional characters are: The paraglossæ are scarcely longer than the ligula; the elytra are truncate at tip, and shorter than the abdomen; the anterior tibiæ are slender, not spinous at the tip, and the anterior tarsi of the male have three slightly dilated joints, with squamiform papillæ on the under surface. Of the antennæ the first and second joints are smoother than the others, but not altogether without hair. The head and thorax are narrower than the elytra, and the thorax is cordate.

These insects are found in damp and shady places, under stones, &c., and are remarkable for discharging, in an explosive manner, a pungent fluid secreted by anal glands.

But one genus, Brachinus, is found in the United States. The species are numerous, and the specific characters are indistinct. They all have reddish-yellow head, thorax, and legs, and blue or bluish-green elytra.

## Tribe II.-PANAGÆINI.

Besides the absence of the usual occilate punctures near the margin of the elytra, the following characters enable this tribe to be recognized; the ligula is short, without distinct paraglossæ; the last joint of the palpi is dilated and truncate; the elytra are entire, neither truncate nor sinuate at the tip; the anterior tarsi of the male, when dilated, are spongy beneath. The first and second joints of the antennæ are glabrous, the third not so, although smoother and less hairy than the fourth. The mentum is toothed in our species, and smaller than usual. The thorax is constricted at base, and the abdomen almost pedunculated. The epimera of the metathorax are not very distinct. The body above and beneath is coarsely punctured and pilose.

Two genera are found in our territory:—

Head constricted behind the eyes; mandibles short, acute. Panagæus. Head not constricted behind; mandibles thick, obtuse. Micrixys.

Of the first, two species are found in the Atlantic States. The second genus is known only by one species, M. distinctus Lec. (Panagæus distinctus Hald.), from New Mexico. The genus was

formerly established by me under the preoccupied name Eugnathus, but afterwards\* changed.

### Tribe III. - MORIONINI.

The ligula in this tribe is dilated, and without paraglossæ; the antennæ are moniliform; the four basal joints are glabrous, and even the outer joints are less pubescent than usual; the last joint of the palpi is cylindrical, truncate; the elytra are entire, rounded at tip, with the usual series of occilate punctures, which, however, diverge from the margin behind. The anterior tibiæ are compressed and dilated, and the tarsi not dilated in the male. The under surface of the head behind the eyes is somewhat sulcate, for the reception of the antennæ; the parapleuræ of the mesothorax are very short, whereby, as well as by the form of the anterior tibiæ and ligula, this tribe is separated from the Psydrini, with which it has been confounded by many authors.

But one genus, Morio, is represented by a single species, M. Georgiæ, in the Southern States. The head is suddenly and slightly constricted behind. It is commonly found under bark, and is an elongate, shining black insect, with deeply striate elytra.

### Tribe IV .- HELLUONINI.

The ligula in this tribe is without paraglossæ; the antennæ are much compressed and thickened externally, with the three basal joints smoother than the others, and sparsely hairy. The anterior tibiæ are compressed and dilated, the anterior tarsi scarcely dilated in the males. The elytra are shorter than the abdomen, broadly rounded and almost truncate at the tip. The head is constricted behind, forming a short neck.

From Dryptini this tribe is distinguished by the shorter first joint of the antennæ, the broad anterior tibiæ, and the ligula without paraglossæ.

One genus (Helluomorpha) only is represented in the fauna of the Atlantic region by six species; the labrum is large, concealing the mandibles, and the antennæ very much compressed. The species are elongate, hairy, strongly punctured, brown insects, found under stones and bark.

<sup>\*</sup> Proc. Acad., VII. 220.

### Tribe V.-DRYPTINI.

The ligula is here furnished with distinct paraglossæ, more or less free at the apex; the antennæ are setaceous, filiform, or even moniliform, the first joint as long as the three following, and the basal joints are searcely less hairy than the others. The anterior tibiæ are not dilated, and not spinous at the tip. The anterior tarsi have three moderately dilated joints, with squamiform papillæ beneath; the elytra are broadly truncate at tip, and shorter than the abdomen. The head is constricted behind, forming a neck.

The species are hairy and densely punctured insects, found under bark and stones. Galerita, Thalpins, and Diaphorus are found on both sides of the continent; Zuphium, thus far, only in the southern province of the Atlantic district. The species of Galerita have red thorax and blue or black elytra.

Neck slender:

Antennæ setaceous.
Antennæ filiform.

GALERITA. ZUPHIUM.

Neck large.

Antennæ filiform; third joint shorter than the fourth; thorax truncate at base.

DIAPHORUS.

Antennæ more or less moniliform; joints 2—4 equal; thorax subpedunculate.

Thalpius.

This tribe commences a series so closely allied as to be with difficulty defined. The essential characters of this tribe, however, are given above, and the combination of them will enable its members to be recognized, although individually the same characters reappear in other tribes.

### Tribe VI. - ODA CANTHINI.

The ligula with distinct paraglosse, free at the apex; the antennæ are filiform, sometimes with three basal joints nearly glabrous, sometimes with only one; the first joint is more elongated than usual, but less so than in the preceding tribe. The palpi are acute at the apex. Head constricted behind into a neck, which, however, disappears in some foreign genera. The anterior tibiæ are not thickened or spinous at the apex; the anterior tarsi of the male are scarcely dilated. The elytra are truncate in some genera, rounded and entire in others. According to the form of the head

and thorax, three groups may be formed, which are, however, merged together by certain foreign genera.

Head rhomboidal, with a narrow neck; thorax cylindrical. Casnoniæ. Head rounded; thorax convex cordate, pedunculated. Lacinophori. Head not narrowed behind; thorax flat, ovate.

## Group I .- Casnoniæ.

The large rhomboidal head, narrow thorax, and truncate elytra, enable this group to be known at first sight. We have in it the first occurrence of bilobed fourth joint of tarsi, and (in foreign genera) of serrate ungues, characters recurring afterwards in other tribes. The species are small, and found under stones; Leptotrachelus also on plants. They fly at night, and are attracted by lamps into houses. One species of Casnonia occurs in California, and two in Atlantic America; one Leptotrachelus in the Atlantic region.

Tarsi filiform.
Tarsi with fourth joint bilobed.

Casnonia. Leptotrachelus.

# Group II.—Lachnophori.

The head is large and rounded; the thorax small, cordate, convex, and turned into a peduncle at base. The elytra broadly rounded at tip, the ungues always entire.

The species are small insects, living in the mud near water-courses, and are gregarious. One species of each genus is found in the southern part of the Atlantic district, and another in the valley of the Colorado and Gila. Ega is remarkable for the outer joints of the antennæ being white, and the elytra with several deep grooves extending from the base to the middle. In both of our genera the last joint of the palpi is ovoid, and sharply acuminate at the apex.

Head strongly contracted behind. Head slightly contracted behind. EGA. LACHNOPHORUS.

This group osculates so completely with the Pterostichini that no distinctive character can be given, except that the three basal joints of the antennæ are not entirely glabrous. But no doubt can result in the mind of the student of our fauna, since the osculant forms are all foreign.

### Group III .- Eucæri.

This group, so far as known to me, contains but a single species, found in Louisiana, Eucarus varicornis Lec., a small brown shining insect, of the form of Trechus, but with the clytra truncate, and the outer joints of the antennæ white. I formerly placed it in Harpalini, but the anterior tibiæ are slender, and not at all spinous. It cannot be placed with the Lebiini, since the ligula is free at the apex for a short distance. The pubescence of the antennæ extends upon the third joint, and even the second is not entirely free from it. The last joint of the palpi is oval and acuminate. The mentum is not toothed.

I have placed it in the present tribe for want of a more convenient position. It is, however, an osculant form which is equally out of place in any tribe here defined. The basal margin of the elytra is more strongly defined than in any of the other genera having truncate elytra.

### Tribe VII.-I.EBHINI.

The ligula in this tribe has the paraglossæ connate to the apex, and somewhat variable in form. The maxillary palpi are filiform, the labial sometimes dilated. The antennæ are filiform, with three basal glabrous joints, except in Trechicus. The head is sometimes constricted behind into a neck, but usually not; the anterior tibiæ are not thickened at the tip, and rarely have any spines at the apex. The elytra are truncate at tip, and shorter than the abdomen; though in Tetragonoderus they are obliquely subsinuate, almost as in certain Pterostichini; the margin is not angulated at the humeri, and the basal margin is sometimes wanting. The anterior tarsi of the male are usually but slightly, rarely strongly dilated, with squamiform papillæ beneath. The ungues are frequently serrate.

Two groups may be formed:-

Labrum short, mandibles exposed.

Labrum large, covering in great part the mandibles.

LEBIÆ.
PERICALLI.

### Group I .- Lebiæ.

The genera of this group form three sub-groups, according to the form of the mentum and head.

## Sub-Group 1.-LEBIÆ (genuinæ).

Head constricted behind; mentum not distinctly toothed, emargination more or less filled with a basal membrane;\* palpi not dilated.

Tarsi dilated, spongy beneath;

Thorax truncate at base.

PLOCHIONUS.

Thorax pedunculate.

LEBIA.

Tarsi filiform: thorax broader behind, truncate.

NEMOTARSUS.

Of the last genus one species is found in the Southern and Western States, on flowers. The Lebiæ are found mostly on flowers, The ungues are serrate in our genera. the Plochioni under bark.

## Sub-Group 2.—Dromii.

In these genera the head is not narrowed behind; the emargination of the mentum is filled with a basal membrane nearly concealing the tooth, when it exists; the palpi are usually acuminate, though the labial are sometimes thickened. Each genus, except Trechicus, which is confined to the Southern States, has representatives on both sides of the continent. The tarsi are filiform in all of our genera. The species are found under stones.

Middle tibiæ with small spines; ungues simple;

Palpi with last joint oval; third joint of antennæ glabrous.

Tetragonoderus.

Palpi with last joint conical; third joint of antennæ pubescent.

TRECUICUS.

Middle tibiæ not spinous;

Labial palpi slender;

families.

Thorax truncate at base:

Mentum not toothed, ungues serrate.

Dromius.

Mentum slightly toothed, ungues simple.

APRISTUS.

Thorax slightly lobed at the base; ungues more or less toothed;

Mentum not toothed.

Mentum with a small emarginate tooth.

METABLETUS.

Labial palpi thick, dilated; ungues more or less serrate. Axinopalpus.

The species of Blechrus and Metabletus are very small, shining,

black insects, and were confounded together by me under the name \* This basal membrane is the anterior portion of the mentum, which is rarely seen in Carabidæ, but is very obvious in many of the following

Bomius. Treehiens was formerly placed by me in Harpalini, but the paraglossæ are connate with the ligula, and the anterior tibiæ are not at all thickened or spinous; it differs from all the other genera of this tribe known to me by the second joint of the antennæ being equal to the third, which is pubescent, and the eighth stria of the elytra anteriorly confluent with the ninth, as in certain Bembidia. The elytra are broadly rounded at the tip, and scarcely striate.

## Sub-Group 3.—CYMINDES.

The mentum tooth is large and distinct, not obscured by a basal membrane; the head is not constricted behind; the labial palpi are more or less dilated and truncate, and the maxillary cylindrical, truncate; the fourth joint of the tarsi is triangular or bilobed.

These species are of larger size, and found under stones and bark; some species of Callida are also found on flowers.

Ungues serrate;

Thorax lobed at the base, labial palpi thick.
Thorax undulated at the base, labial palpi thick.\*

APENES. GLYCIA.

Thorax truncate at base, labial palpi moderate;

Tarsi with the fourth joint emarginate;

Labial palpi with the last joint dilated, body hairy. Cymindis. Labial palpi with the last joint elongate, body glabrous.

Pinacodera.

Tarsi with fourth joint bilobed, body glabrous. Ungues simple, thorax truncate at base.

CALLIDA.
PHILOTECHNUS.

The last genus is confined to the Pacific coast; Glycia to the central district; Cymindis is widely distributed; the other genera are represented only in the Atlantic district. Pinacodera is established by Schaum upon Cymindis limbata Dej. and its allies, and differs from Cymindis by the male having four joints of the anterior tarsi dilated, while in genuine Cymindis there are but three. Apenes is remarkable for the depth of the clypeal suture.

This sub-group osculates very closely with the Platynus group of the Pterostichini.

<sup>\*</sup> Motschulsky (Bull. Mosc., 1859, ii. 143) has proposed a genus Philophuga for Cymindis viridis Dej. and another Californian species. It is said to differ from Glycia by the bilobed fourth tarsal joint, and from Callida by the larger lobes of the mentum. I have not had an opportunity of seeing either of the species referred to by the author.

## Group II.—Pericalli.

These are distinguished from genuine Lebiæ by the larger size of the labrum, which covers in great part or entirely the mandibles. The palpi are slender, and the tarsi filiform. Two genera are found in the Atlantic district:—

Head constricted behind, thorax pedunculate. Head not constricted behind, thorax truncate. RHOMBODERA. COPTODERA.

The mentum is toothed in both; in the second genus the ungues are serrate, in the first they have only a basal dilatation.

Didetus Lec. is synonymous with Rhombodera.

### Tribe VIII. - PTEROSTICHINI.

Ligula free at the extremity, with distinct paraglossæ (except in one foreign genus); antennæ with three glabrous basal joints, the apex of the third rarely pubescent in foreign species. Head not contracted into a neck, though sometimes narrowed behind. Elytra obliquely sinuate at the apex, never truncate; the basal margin is distinct in all of our species, and forms an angle at the humeri. Anterior tibiæ either slender and searcely spinous, or thickened and spinous at tip; anterior tarsi of the male with three dilated joints furnished beneath with squamiform papillæ.

Schaum includes in this tribe genera having the third joint of the antennæ partly pubescent, and less than three joints of the anterior tarsi of the male dilated (as Stenomorphus, Patrobus, &c.). By admitting these, however, it becomes impossible to fix distinct limits to the tribe, and I have therefore removed these heterogeneous elements to form other tribes, to be found below. According to the form of the anterior tibiæ, two groups may be formed of our genera:—

Anterior tibiæ slender, dilated joints of the tarsi narrow. PLATYNI.

Anterior tibiæ thickened at the extremity, dilated joints of the tarsi triangular or cordate. Pterostichi.

# Group I .- Platyni.

By the slender form of the antennæ and legs this group osculates with the last members of the first group of Lebiini. And this resemblance is further increased by the occurrence of serrate ungues in some members of the present group.

I have combined Pristodactyla Dej. with Calathus, and Anchus Lec. with Platynus, the differences becoming evanescent by the comparison of many species. Colpodes should probably not be separated from Platynus;\* the characters are by no means distinct. The species are quite numerous, and found under stones, mostly in moist places.

Our genera, as thus reduced, are as follows:-

Tooth of the mentum emarginate; ungues more or less serrate.

CALATHUS.

Tooth of the mentum entire; ungues simple;

Third joint of the antennæ very long.

RHADINE.

Third joint of the antennæ moderate;

of the anterior pair.

Fourth joint of the tarsi emarginate, with long apical hairs, at least

Fourth joint of the tarsi nearly entire. Mentum without any tooth; ungues simple.

PLATYNUS. OLISTHOPUS.

## Group II.-Pterostichi.

The anterior tibiæ are gradually thickened towards the apex, and armed externally with small spines. The ungues are always simple. The anterior tarsi of the male have the three dilated joints triangular or cordate, sometimes (Loxandrus) oblique, as in Galerita. The characters separating the genera are of but slight importance, and in several (Lophoglossus, Holciophorus, and Loxandrus) depend upon sexual peculiarities of the male. Although the species of Amara would never be confounded with Pterostichus by a practised eve, there is no difference capable of being used in a synoptic table for the purpose of distinguishing the two genera. For this reason the assemblage of characters common to all species of Amara, but which are only individually present in some species of Pterostichus, must be used. They are given below. According to the latest researches, Peccilus cannot be retained separate from Pterostichus.

Mentum tooth emarginate, last joint of palpi dilated. MYAS. Mentum tooth emarginate, last joint of palpi cylindrical (rarely oval); Episterna of metathorax short; elytra with one dorsal puncture; prosternum not margined, but channelled. EVARTHRUS.

<sup>\*</sup> This genus is called Anchomenus by most foreign authors. detailed in other places the reasons which induce me to retain the name here adopted.

Episterna of metathorax variable; elytra with none or several dorsal punctures:\*

Ligula flat or slightly convex; prosternum not channelled, sometimes margined. PTEROSTICHUS.

Ligula carinate; episterna of metathorax elongate; prosternum not margined nor channelled. Lophoglossus.

Ligula carinate; episterna of metathorax short; prosternum margined and channelled. HOLCIOPHORUS.

Mentum tooth obtuse, scarcely concave; palpi slender, last joint cylindrical; episterna of metathorax elongate; elytra with one dorsal

Mentum tooth emarginate, rarely entire; head not at all narrowed behind; labrum slightly emarginate; last joint of palpi slightly oval; elytra without dorsal punctures.

### Tribe IX.-LICININI.

The paraglossæ in this tribe are variable in form, sometimes (Badister) entirely connate with the ligula, sometimes (Diplochila, Dicælus) free at the apex. The head is large and obtuse; the labrum is emarginate, and deeply impressed; the mandibles are obtuse. Three basal joints of the antennæ are smooth (the third is slightly hairy in some species of Badister, but not rough like the following joints). The anterior tibiæ are somewhat thickened and spinous at the tip; the anterior tarsi of the male have three (in some foreign genera only two) joints strongly dilated, covered beneath with a dense brush of hair. The elytra are slightly and obliquely sinuate at the apex; one dorsal puncture is seen on the third interval. The body is never hairy.

In our genera the clypeus is divided into an anterior subcoriaceous, and a posterior corneous portion, and the mentum is not toothed.

Last joint of palpi oval;

Paraglossæ connate with the ligula, and longer than it. BADISTER. Ligula free at the apex. DIPLOCHILA.

DICELUS.

Last joint of palpi slightly securiform.

The species of the first genus are small, frequently prettily spotted insects, found under stones; they are rare, and occur on both

<sup>\*</sup> Except in Pterostichus honestus (Fer. fastidita Dej.), in which a single dorsal puncture is seen. This species is, however, of the same form as P. adoxus, and would not be confounded with the very characteristic forms of any of the groups of Evarthrus.

sides of the continent. Diplochila (Rembus Latr.) is represented only east of the Rocky Mountains, while Dicælus is confined exclusively to Eastern North America. The species of the latter are usually large; some are of a beautiful violet color, and in all of them the eighth interval is carinated from the base for at least one-third the length. They are found under stones and pieces of wood, and are more numerous in the Southern States.

### Tribe X.—CHLÆNIINI.

The ligula is free at the apex, with distinct paraglossæ; the labrum is flat, rarely deeply emarginate; the mentum strongly toothed (except in Anomoglossus). The antennæ have three basal joints smooth and glabrons. The anterior tibiæ are scarcely thickened externally, and but slightly spinous. The anterior tarsi of the male have three (rarely four) joints dilated, square with rounded angles, and covered beneath with a dense brush of hair. The elytra are regularly rounded behind, and not sinuate; the third interval has a single puncture.

The systematic difference between this tribe and Pterostichini is wholly sexual, yet the genera may be easily recognized, since the Chlænii are densely pubescent, and the Oodes have the ocellate punctures of the elytra very near the margin, and the eighth and ninth striæ confluent, characters not found among the Pterostichini.

Two groups are contained in this tribe.

## Group I.—Chlænii.

Body densely pubescent, outer striæ of the elytra normal.

These are usually prettily colored metallic species, found under stones and pieces of wood in moist or shady places; they evolve a strong odor, which recalls that of a mixture of camphor and creasote.

Mentum not toothed; labrum deeply emarginate. Mentum tooth distinct, emarginate; Anomoglossus.

Last joint of palpi truncate.

CHLÆNIUS. ATRANUS.

Last joint of palpi oval, nearly pointed.

To Anomoglossus belongs, besides the two species *Chl. emarginatus* and *Chl. pusillus*, upon which the genus was founded by Chaudoir, also *Chl. amænus* Dej. Of these genera, Chlænius alone is represented in the western part of the continent.

## Group II.-Oodes.

Body glabrous, usually elliptical; eighth and ninth strix of the elytra confluent, occilate punctures very close to the margin. No species has yet occurred in the Pacific district, although one Oodes is found in the Gila valley.

Our genera are thus related:-

All the tarsi pubescent beneath (anterior tarsi 3 with four dilated joints).

LACHNOCREPIS.

Posterior tarsi not pubescent beneath;

Body finely punctulate; anterior tarsi & with four dilated joints.

Anatrichis.

Body above smooth; anterior tarsi & with three dilated joints;

Antennæ slender, filiform. Antennæ stout, compressed. Oodes. Evolenes.

The species of Oodes have been divided into two genera by Chaudoir, as follows:—

Anterior tarsi & with the first joint entirely spongy beneath.

Anterior tarsi & with the first joint spongy only at the tip.

Stenous.

But these differences seem to me to indicate only natural groups of species.

#### Tribe XI.-BROSCINI.

Ligula connate with the paraglossæ, which are sometimes elongated. Antennæ with four glabrous basal joints. Elytra entire; abdomen connected with the thorax by a cylindrical peduncle (as in Scaritini); anterior tibiæ slightly enlarged and spinous at the tip. Anterior tarsi of the male are dilated in a variable number of joints, clothed beneath sometimes with a dense brush of hair, sometimes with squamiform papillæ; in some genera the middle tarsi are also dilated in the same sex.

Two groups may be indicated in this tribe, according as the posterior angles of the thorax are distinct or not.

### Group I.-Brosci.

Abdomen strongly pedunculated, posterior angles of thorax indistinct.

This group is represented only by two Russian American species of Miscodera, which are unknown to me. The genus has entirely

the form of Dyschirius among the Scaritini; three joints of the anterior tarsi and two of the middle tarsi are dilated in the male, and furnished beneath with squamiform papillæ. The mentum has a distinct tooth.

## Group II .- Psydri.

Abdomen moderately pedunculated; posterior angles of the thorax distinct; mentum not toothed.

Two genera showing a tendency to revert to Morio are comprised in this group. They differ, however, from that tribe by the not compressed anterior tibiæ and distinct paraglossæ, as well as by the large epimera of the mesothorax. The statement of Schaum, that the epimera of the metathorax are indistinct in the Morionini (in which tribe he places Haplochile), I do not find correct, either of the genera here placed or of Morio itself.

Haplochile pygmæa has a remarkable distribution, being found in the Atlantic district and also in Oregon. It is a small, brown, subcylindrical insect, which, when disturbed, emits a very powerful fetid odor, quite disproportioned to the size of the animal. I have found it under pieces of wood, in moist places, at Lake Snperior. The anterior tarsi are scarcely dilated in the male.

Eyes extending to the margin of the oral opening; body convex.

HAPLOCHILE.

Eyes small, rounded; body depressed.

PSYDRUS.

## Tribe XII.—STENOMORPHINI.

The ligula is free at the apex, with distinct paraglossæ; the antennæ have but two glabrous joints. The last joint of the palpi is cylindrical, subtruncate. The mentum is deeply emarginate, not toothed. The anterior tibiæ are thickened and slightly spinous at the tip; the first joint of the anterior tarsi is broadly dilated in one sex, but has beneath neither squamiform papillæ nor hairs; in the other sex it is not dilated, but is as long as the two following. The elytra are deeply striate, without any dorsal punctures. The epimera of the mesothorax are very short.

The species are few in number, and are South American, with the exception of the two which are found in our territories. Agaosoma californicum is found in salt-marshes in California, Stenomorphus rufipes in Texas. They are very slender, elongated insects.

Anterior tibiæ densely fimbriate internally, with long hairs. Agaosoma.

Anterior tibiæ sparsely pubescent internally. Stenomorphus.

The relations of this tribe are usually considered as with Pterostichini; but, in consequence of the third joint of the antennæ being almost entirely covered with pubescence, I regard it as closely allied with the Harpalini, and cannot help suspecting that the dilated first joint of the anterior tarsi may be a female rather than a male character, such as is seen in Gynandropus, &e., in the next tribe. In this ease there would be no satisfactory reason for considering it as a distinct tribe, but it would be merged into the next.

### Tribe XIII.-HARPALINI.

The ligula in this tribe is free at the apex, with distinct paraglossæ. The antennæ have the first and second joints, and sometimes one-half of the third, smooth and glabrous. The palpi have the last joint sometimes cylindrical, sometimes acuminate. The anterior tibiæ are more or less thickened and spinons towards the apex, sometimes almost palmated; the anterior and middle tarsi have frequently four joints dilated in the male, and clothed beneath with hairs or papillæ; in other genera the male tarsi are not at all dilated; the first joint of the same tarsi in the female is sometimes dilated. The epimera of the mesothorax are very short; the elytra are rounded and sinuate at the apex, sometimes without, but usually with a single dorsal puncture, rarely with three series of punctures.

Three groups may be formed on sexual characters:—

Anterior tarsi of the male not dilated.

Anterior and middle tarsi of the male dilated, with a brush of hairs beneath.

ELECTRICH.

Anterior and middle tarsi of the male dilated, with squamiform papilla beneath.

HARPALL

# Group I.—Dapti.

The head behind the eyes is larger than in the other two groups; the legs are thicker and better fitted for digging, and the third joint of the antennæ has a smaller portion covered with pubescence. Although the genera may individually be readily recognized, I can give no other characters to separate the group.

Anterior tibiæ subpalmate (elytra with three series of dorsal punctures).

Nothorus.

Anterior tibiæ expanded at the apex (elytra without dorsal punctures).

Geopinus.

Anterior tibiæ normal in form;

Mentum strongly toothed;

Apical angles of the joints 1-3 of the anterior tarsi prolonged into spines; hind angles of thorax rounded.

MELANOTUS.

Apical angles of the joints of the anterior tarsi not prolonged; hind angles of thorax distinct.

CRATACANTRUS.

Mentum not toothed;

Hind tarsi with the joints 1-4 equal;

Labrum not emarginate.

Labrum emarginate.

Cratognathus.
Agonoderus.

Hind tarsi with the joints 1—4 decreasing in length, labrum not emarginate.

DISCODERUS.

These genera do not occur on the Pacific slope, with the exception of a single species of Agonoderus found in California. Melanotus has been found in Arizona. Cratognathus (including Piosoma Lec.) is represented by two species from Kansas and New Mexico. Of Nothopus but a single species from Kansas is known. Discoderus\* is remarkable for its resemblance to species of Harpalus (group Selenophorus), and has three rows of punctures on the elytra; the middle tibiæ of the male are serrate within.

## Group II.—Eurytrichi.

The anterior tarsi are strongly, the middle tarsi usually strongly, sometimes only slightly, dilated, and covered beneath with a dense brush of hair. The head is somewhat narrowed behind the eyes. The first joint of the dilated tarsi of the male is more or less narrower than the second.

Ligula dilated at tip; mentum not, or only obsoletely, toothed.

ANISODACTYLUS.

Ligula not dilated at tip, truncate, or subtruncate;

Paraglossæ narrow, curved, not longer than the ligula;

Mentum not toothed.

Mentum toothed.

XESTONOTUS. Spongopus.

Paraglossæ broad, rounded, longer than the ligula;

Mentum not toothed (body pubescent).

AMPHASIA. EURYTRICHUS.

Mentum toothed (body glabrous).

25) from Coli

<sup>\*</sup> Pangus americanus Motsch. (Bull. Mosc., 1859, ii. 137), from California, seems to belong to Discoderus. The genus is not, however, known to me as occurring west of the Rocky Mountains.

Of these genera only the first is represented on the Pacific coast, and there, besides the normal form, is found a group of species (Dichirus Mann.), having the body clothed with long hairs, and the intervals between the strice of the elytra marked with two rows of punctures; in them, too, the middle tarsi of the male are searcely dilated.

## Group III .- Harpali.

The anterior and middle tarsi usually strongly, sometimes only slightly dilated, clothed beneath with two rows of squamiform papillæ. The head is usually slightly narrowed behind the eyes. have found it necessary to reduce the number of genera indicated in my synoptical table of this group,\* an undue prominence being there given to the form of the ligula and paraglossæ.

Mentum not toothed; anterior tarsi with the first joint elongated and dilated in the female;

Elytra with three rows of punctures.

GYNANDROPUS.

Elytra with a single dorsal puncture. Anterior tarsi of the female not dilated; GYNANDROTARSUS. †

Mentum strongly toothed.

BRADYCELLUS.

Mentum tooth very small, or none;

Last joint of maxillary palpi slightly elongated; Thorax subquadrate.

Thorax rounded.

HARPALUS.

STENOLOPHUS.

Last joint of maxillary palpi nearly twice as long as the preceding (thorax flat, subcordate, with prominent hind angles). Philodes.

Harpalus includes Selenophorus Dej., which consists of the species having three rows of punctures on the elytra. Hairy and punctured Harpali (forming the division Ophonus) are not represented in North America. There is no special difference between Harpalus and Stenolophus, except the smaller size and rounded thorax of the species of the latter; in most of the species of Stenolophus the fourth joint of the dilated tarsi of the male is deeply bilobed, and the palpi are acuminate; but among the species of Harpalus proper there is much variation in this respect, as well as in the length of the first joint of the hind tarsi.

Philodes contains two species, Stenolophus alternans Lec. (Badister testaceus and Aepus testaceus Lec.), having three rows of

<sup>\*</sup> Trans. Am. Phil. Soc., x. 384.

<sup>†</sup> It is quite possible that this genus will be found to belong to the preceding group.

punctures on the elytra, and the Californian S. tener Lee., without rows of punctures. The form is more elongated than that of any true Harpalus or Stenolophus, and the last joint of the maxillary palpi, besides being longer, is more conical, almost forming with the preceding a fusiform mass, as in Treehus. They are found in wet places, and are quite rare.

### Tribe XIV.-POGONINI.

The ligula is free at the apex, with distinct paraglossæ; the palpi are slender, and the last joint is nearly cylindrical; the mentum tooth is distinct, emarginate at tip. The anterior tibiæ are slightly thickened, with a few apical spines; the two basal joints of the anterior tarsi are dilated in the male, with two rows of papillæ beneath. The antennæ have but two basal joints glabrous, the third is elongated and pubescent. The head has deep frontal impressions, and is slightly constricted behind. The epimera of the mesotherax are short, and but very slightly widened externally.

This tribe is represented in our fanna by the genus Patrobus alone;\* one species, *P. longicornis* Say, is found commonly under stones in the Atlantic region, the others are northern, and species are found on both sides of the continent.

The position of these insects is disputed by different authors. Schaum, the latest authority, ranges them with Pterostichini; but the difference in the number of dilated tarsal joints in the male seems to warrant their separation, and indeed almost their union with the next tribe, with which they were associated by Erichson. The pubescence of the antennæ nearly covers the third joint, a character found exceptionally (according to Schaum) in the tribe Pterostichini, but which is not seen in any of the species in our fauna.

The species of Patrobus having convex thorax have the eighth stria of the elytra confluent with the margin anteriorly; in those with flat thorax the stria is separate from the margin for its whole length.

### Tribe XV.-TRECHINI.

In this tribe the lignla has eight bristles, and is free at the apex, with distinct and long paraglosse; the palpi have the last

<sup>\*</sup> Pogonus minutus Dej. is not found in the United States, as stated by him.

joint acuminate, not shorter than the penultimate joint. The mentum is toothed; the third joint, and even the second joint, of the antennæ is pubescent. The head has the frontal impressions long and deep, curved behind the eyes, forming a slight posterior constriction. The anterior tibiæ are either linear (Anophthalmus) or slightly dilated, not spinous at the tip. The anterior tarsi of the male have two somewhat obliquely dilated joints, furnished beneath with squamiform papillæ. The epimera of the mesothorax are short, and somewhat triangular. The elytra are rounded at the apex, with the eighth stria anteriorly confluent with the margin, and most frequently interrupted at the middle.

Two genera are represented in our fauna; both have the first stria of the elvtra recurved at the apex.

Eyes wanting; anterior tibiæ linear. Eyes large; anterior tibiæ slightly thickened. Anophthalmus.
Trechus.

Anophthalmus Tellkampfii is found in the Mammoth Cave, Kentucky; other species will be found in our other caves, when scientific zeal shall cause them to be properly explored. Trechus is found on both sides of the continent, but only in northern regions. The European T. rubens has recently been found by Mr. H. Ulke in Nova Scotia. Trechus includes Epaphius.

I formerly placed Tachys in this tribe; by the definitions here given it belongs more properly to the next; but with the European genus Perileptus *Schaum* there is a very close osculation between the two tribes.

### Tribe XVI.--REMBIDIANI.

The ligula has but two bristles at the apex, which is free for a very short distance; the paraglosse are distinct, scarcely longer than the ligula; the penultimate joint of the palpi is obconical, and the last joint much narrower and shorter, so as to be subulate. The mentum is strongly toothed, and the tooth is usually emarginate. The two basal joints of the antenne are glabrous, the third is pubescent. The form of the head and frontal impressions are variable. The anterior tibic are slightly spinous at tip, either squarely truncate as usual, or slightly dilated and obliquely truncate, with the outer angle a little prominent. The anterior tarsi of the male are usually somewhat obliquely dilated in the first and second joints, the first being much larger than the second, but in

Anillus, Pericompsus, and certain Tachys the tarsi of the male are not at all dilated. The epimera of the mesothorax are more or less triangular. The elytra are entire, and rounded at tip, with the eighth stria usually confluent anteriorly, or nearly so, with the margin sometimes widely interrupted, but usually entire.

Like the other genera of Carabidæ containing very numerous species, Bembidium consists of groups of species differing greatly in form, and even in the structure of the parts of the mouth; but the characters being evanescent, cannot be used for the definition of genera.

Our genera are as follows:-

Eyes wanting.

ANILLUS.

Eyes small, flat.

LYMNÆUM.

Eyes large or moderate, convex;

Anterior tibize not dilated at the apex; elytra with scutellar stria; sutural stria not recurved at the apex.

Behblium.

Anterior tibiæ slightly dilated and obliquely truncate at the apex; elytra without scutellar stria; sutural striæ recurved at the apex;

Elytra with the eighth stria interrupted or less deep at the middle.

TACHYS.

Elytra with eighth stria very deep.

Pericompsus.

Of Anillus and Lymneum but single Californian species have yet been found; the other genera are widely diffused. *Blemus anescens* Lec. must be placed in Tachys, the smaller proportional size of the third joint of the antennæ not being sufficient for generic separation.

# FAM. III.—AMPHIZOIDAE.

Mentum deeply emarginate, with a medial tooth; lobes obtusely rounded; ligula large, quadrate, corneous; gular suture none.

Maxillæ with the outer lobe narrow, glabrous, palpiform, but not biarticulate; the inner lobe curved, acute at the apex, sparsely ciliate, with spines internally.

Antennæ inserted under the front, behind the base of the

mandibles; entirely glabrous, polished.

Prothorax with the epimera and episterna moderately distinct; prosternum produced behind over the mesosternum.

Metasternum truncate behind, not reaching the abdomen.

Abdomen with six ventral segments, the anterior three connate.

Legs slender, formed for running; anterior and middle coxæ small; globular cavities of the former not closed; posterior dilated internally, contiguous at the inner margin, extending also to the margin of the body, separating the side pieces of the metasternum from the first ventral segment.

Notwithstanding the searching analysis of the characters of Amphizoa insolens, made by Dr Schamm in his Insecten Deutschlands, I must differ with my eminent friend regarding the interpretation of the characters, and still regard it as representing a distinct family, and not as a very aberrant Carabide. It is true that the characters it shows, with the exception of the metasternum truncate behind, individually are found in various anomalous Carabide, but the concentration of all of them in one object, with the addition of yet another, entirely unknown otherwise in the series of land carnivorous beetles, surely constitutes sufficient reason for regarding this single species as the representative of a distinct type, equal in value to the families which precede or those which follow.

In addition to the characters given above, I would mention: the head is broad, obtuse; the eyes very small; the labrum very transverse, sinuate in front; the palpi short, cylindrical; the side suture of the under surface of the prothorax is distinct, the others are nearly obliterated; the prosternum is broadly produced behind the coxe, and obtusely rounded at tip; the coxe are not entirely enclosed, but are protected behind by the mesosternum. latter is deeply concave behind, perpendicular in front, and is almost covered by the prosternum when the thorax is deflexed. The side pieces are diagonally divided, and the epimera reach the coxe, which are small and round. The metasternum is prolonged and obtusely rounded between the middle coxæ, transversely truncate behind; the side pieces are triangular, without visible epimera; the posterior coxe are large, flat, rounded behind, extending to the margin of the body, internally contignous for a space nearly equal to the length of the metasternum, with a quadrate internal dilatation for the insertion of the legs, as in Carabidæ,

The legs are slender, rough with granulated points; the anterior tibic are not in the least degree sulcate internally, and have two small terminal spurs; the tarsi are glabrous, the joints rounded beneath; the claws simple. The elytra are twice as broad as the

thorax, connate, rounded, not convex, with nine dorsal furrows, and no marginal one; the apex is slightly sinuate.

The surface is rough, without lustre, and moderately coarsely punctured.

This very singular insect is found in northern California, probably near the Sierra Nevada; of its habits nothing is known.

# FAM. IV.—DYTISCIDAE.

Mentum deeply emarginate, broadly toothed in the middle; lobes somewhat acute; sides rounded, converging in front; gular suture distinct; ligula large, quadrate, corneous.

Maxillæ with the outer lobe biarticulate, the inner curved,

acute at the apex, ciliate internally.

Eyes rounded, never emarginate.

Antennæ inserted under the front, behind the base of the mandibles, glabrous, polished, usually filiform, 11-jointed

(rarely 10-jointed).

Prothorax with the epimera and episterna distinct; prosternum compressed, produced behind and fitting into a cleft or emargination of the metasternum; anterior coxæ protected behind by the mesosternum, subconical.

Metasternum short, pointed behind, but very closely con-

nate with the posterior coxæ.

Posterior coxe very large, usually oblique, contiguous at the inner margin, reaching the side of the body, entirely cutting off the ventral segments from the metathorax; internally with a small dilatation for the insertion of the legs, or a broad plate (Haliplini) extending over their whole surface, and also covering the greater part of the abdomen.

Abdomen with six ventral segments, the three anterior ones connate, the sixth rounded at tip, usually permitting the seventh internal but corneous one to be slightly visible.

Legs ciliate with long hairs, posterior usually compressed, elongated, formed for swimming; tarsi 5-jointed, the fourth joint of the anterior and middle tarsi sometimes obsolete.

In this family are contained aquatic carnivorous insects, having, as will be seen by the above characters, a close relationship to Carabidæ, and in fact only differing by the form of the posterior coxæ, and the natatorial legs. The particular portion of the Carabidæ which approaches most nearly these insects is found in the

first sub-family. In common with that series, the Dytiscidæ have the side pieces of the mesosternum diagonally divided, with the epimera reaching the coxæ; the side pieces of the metasternum are narrow, without visible epimera. The middle portion of the mesosternum is entirely covered; on separating the prothorax, it is found to be deeply sulcate for the reception of the prolongation of the prosternum, which thus firmly unites the different parts of the body, so as to give the stability necessary for rapid motion through the water.

The body is rounded, sometimes elongated, usually elliptical, rarely very convex. The species are more numerous in the northern parts of the country; they are all winged, and the elytra are always marked with three discoidal, irregular rows of punctures; rarely the elytra are sulcate (Copelatus, females of certain Dytiscus), frequently punctured, sometimes sculptured with transverse lines (certain Colymbetes).

The genera represented in our country form two sub-families, so distinct that they might with much propriety be considered separate families.

# Sub-Family I.—HALIPLIDAE.

Antennæ 10-jointed; abdomen covered with large plates of the posterior coxæ, which are small and transverse; metasternum almost truncate behind, scarcely emarginate in front; legs scarcely natatorial.

This series consists of a single group, containing but two genera, Haliplus and Cnemidotus, of small size; the body is very convex, somewhat acute before and behind, yellow shining, spotted with black or gray. The elytra are covered with rows of punctures; in Haliplus there are nine and a marginal series, in Cnemidotus there are eleven or twelve. The scutellum is not visible. The insects of this sub-family swim but feebly, and with little activity.

Palpi subulate. Palpi filiform. HALIPLUS. CNEMIDOTUS.

# Sub-Family II.—DYTISCIDAE (gennini).

Antennæ 11-jointed; posterior coxæ without plates, very large (except in the European genus Pelobius); legs very natatorial (except in the same genus).

Four tribes are represented in our fauna, which may be thus distinguished:-

Anterior and middle tarsi with the third joint bilobed, the fourth scarcely I. Hydroporini.

Tarsi with five distinct joints;

Prosternum dilated behind, truncate.

Prosternum compressed;

Anterior tarsi of 3 dilated, joints oblong.

Anterior tarsi of & forming a large disk.

II. NOTERINI.

III. COLYMBETINI. IV. DYTISCINI.

## Tribe I.—HYDROPORINI.

This group contains only small species, having the usual form of this family, but rarely very broad, and sometimes nearly globose. But two genera are found with us: Hydroporus, of varied form, having no visible scutellum; Celina, with elongate body, obtuse before, pointed behind, with a distinct scutellum.

More than eighty species of the former genus are known to me,\* and species are found in every part of the country.

### Tribe II.—NOTERINI.

The form of the prosternum in Noterus and the three genera below mentioned is so remarkably different from that seen in the rest of the members of this family, that they seem to be naturally placed in a special tribe; the prosternum is elevated, very much dilated behind the anterior coxe, and truncate; it reaches the metasternum, which is also widely truncate in front.

The form of body in these genera is likewise peculiar. In Colpius Lec. it is almost globose, as in certain Hydroporus; in the others it is oval, very convex, acutely pointed behind; the labial palpi are dilated in our genera, sometimes very much so; the antennæ have the middle joints more or less dilated. The scutellum is not visible. No species has yet occurred in the Pacific district.

Our three genera may be thus distinguished:—

Prosternum deeply concave; body globose; palpi emarginate at tip.

Prosternum flat:

Last joint of maxillary palpi emarginate. Last joint of maxillary palpi truncate.

SUPHIS. HYDROCANTHUS.

Colpius contains but a single species, found in Louisiana.

<sup>\*</sup> For a synopsis of them, ride Proceedings of the Academy of Natural Sciences of Philadelphia, vii. 290.

### Tribe III.—COLYMBETINI.

The only character by which this tribe is distinguished from the next is the form of the dilated anterior tarsi of the males. The dilated joints are here oblong and of equal width, covered beneath with cups of equal or nearly equal size. The prosternum, as in it, is narrow, compressed, and pointed behind. body is oval, not very convex. The species are small or moderate in size.

Our genera may be thus tabulated:-

Scutellum distinct.	. 2
Scutellum invisible.	LACCOPHILUS.
2 Last joint of palpi truncate or rounded.	3
Last joint of palpi emarginate.	COPTOTOMUS.
3 Prosternum not sulcate.	4
Prosternum with a deep groove.	MATUS.
4 Claws of posterior tarsi unequal, the outer one fixed.	COLYMBETES.
Claws of posterior tarsi equal, movable.	5
5 Elytra striate.	COPELATUS.
Elytra smooth.	6
6 Thorax narrowed at the base.	Anisomera.
Thorax as wide at the base as at the middle, or wider.	AGABUS.

I have included in Colymbetes the genus Ilybius Er., and entirely agree with Lacordaire that the difference is too slight to enable them to be retained as distinct.

I am also inclined to believe that Copelatus and Anisomera should be united with Agabus; the difference of the first is merely in the striate elytra; that of the second in the thorax, being narrowed from the middle to the base.

### Tribe IV.—IDYTISCINI.

This tribe contains in the genera Cybister and Dytiscus all the large species, and in the other genera species of moderate size. As before mentioned, it only differs from the last group in having the joints 1-4 of the anterior tarsi of the male of unequal width, so as to form a round disk, furnished beneath with cups of very unequal size. The scutellum is always visible. The body is oval not very convex, usually broader behind the middle, rarely elliptical; the elytra of females of certain Dytiscus and Acilius are sulcate. All the genera of the tribe are represented in our fauna, and may be distinguished thus:-

Posterior tarsi with two claws. Posterior tarsi with a single fixed claw. CYBISTER. 2 Claws equal, or nearly so; movable; Claws unequal, the upper one fixed (last joint of palpi not elongated); 4 3 Last joint of palpi not elongated. Last joint of palpi elongated. EUNECTES. 4 Body ovate, intermediate tarsi of male not dilated. Acilius. HYDATICUS.

Body elliptical, intermediate tarsi of male dilated.

# FAM. V.—GYRINIDAE.

Mentum deeply emarginate; lateral lobes rounded; gular suture distinct.

Ligula large, quadrate, corneous, filling the emargination

Maxillæ with the outer lobe usually wanting, sometimes slender, not articulated, the inner curved, ciliate internally, acute at tip.

Eyes divided by the sides of the head, upper and lower

parts both rounded.

Antennæ inserted under the sides of the front, behind the base of the mandibles, short, thick, third joint auriculate, subsequent ones indistinct, last joint elongate.

Prothorax with the prosternum short and carinated, epis-

terna and epimera distinct, the latter large.

Mesosternum very large, rhomboidal, posterior angle emarginate for the reception of the point of metasternum; episterna and epimera entirely connate, attaining the middle coxe.

Metasternum very short, pointed before and behind; epis-

terna very large; epimera not visible.

Coxæ, anterior, small, globular; middle, flat, oblique, almost reaching to the posterior coxe behind; the latter are large, truncate anteriorly, contiguous at their inner margin, extending to the margin of the body, and thus separating entirely the ventral segments from the metasternum; they are dilated internally, and broadly excavated behind for the motion of the hind legs.

Abdomen 7-jointed, the three anterior segments connate, the first almost obsolete; the seventh longer than the sixth,

rounded at tip.

Anterior legs very long, received in oblique grooves of the pro- and mesosternal segments; tibiæ slender, with one terminal spur; tarsi 5-jointed, of the male sometimes dilated.

Middle and posterior legs short, broad, very much compressed; tibiæ without spurs; tarsi 5-jointed; first joint of middle feet large, triangular; second and third very short; fourth large, triangular; fifth triangular, with two approximate claws. Of the posterior feet of Dineutes the first joint is very large; the others are small, and diminish gradually in size, the last with two very small claws. In Gyrinus the posterior and middle tarsi are nearly alike.

This family is one of the best defined and most distinct of any in the whole order of Coleoptera, and contains a moderate number of species, of an oval form, somewhat attenuated at either end, usually of a very brilliant bluish-black color above, with the punctures reflecting a golden tint.

Their habits are aquatic, but remarkably different from those of the Dytiscidæ; they are usually seen in large numbers on the surface of the water, circling about in labyrinthine curves, and diving but rarely, and only to escape from an immediate danger; when caught, many exhale a milky fluid, having an odor of apples.

The elytra are in two of our genera striate, with rows of punctures; in Gyretes they are without striæ, smooth and shining on the disk, finely punctured and pubescent on the sides. The species of Dineutus and Gyrinus frequently resemble each other very closely, and ours have not yet been investigated with success. Gyretes one species is found in the Colorado River of California, and another in Illinois.

Our three genera are thus separated:—

Last ventral segment of abdomen depressed, rounded at tip; Scutellum distinct. GYRINUS. Scutellum wanting (labrum transverse). DINEUTUS. Last ventral segment of abdomen elongated, conical (labrum prominent,

scutellum wanting). GYRETES.

# FAM. VI.—HYDROPHILIDAE.

Mentum large, quadrate; gular suture distinct. Ligula broad, very short, usually concealed, with labial palpi very distant at base.

Maxillae with two lobes ciliated at the extremity.

Eyes round in all of our genera (emarginate or even divided by the side of the head in some foreign genera).

Antennæ inserted under the sides of the front, behind the base of the mandibles, moderately short, having from six to nine joints, the outer joints forming a sudden club, of which all the joints except the first one are pubescent.

Prothorax with the episterna and epimera not distinct; prosternum very short; anterior coxæ globose, conical, exserted.

Mesosternum moderate, frequently longitudinally elevated; side pieces not divided, extending to the coxe, which are large, oblique, and flat, prominent only inside of the insertion of the thigh.

Metasternum large, frequently carinate, and produced into a long spine behind; side pieces large, epimera not visible.

Posterior coxe oblique, flat, extending to the sides of the abdomen.

Abdomen usually with five ventral segments, in the foreign genus Limnebius with seven, and in Cyllidium with but apparently four; segments not connate.

Legs moderate; tibiæ terminated by two large spurs; tarsi five-jointed, the middle and posterior ones sometimes compressed and fimbriate, for swimming. Trochanters not prominent on the inner part of the thigh.

This group contains insects which live on decomposing vegetable matter, though the larvæ are carnivorous and quite voracious; the majority of them are aquatic. Except those of the tribe Helophoridæ, they are of an oval, convex form, sometimes hemispherical; the elytra are sometimes striate, sometimes without dorsal striæ, but with a distinct sutural stria; sometimes the latter is also effaced. In the species with smooth elytra three faint series of punctures may be seen on each elytron, as in Dytiseidæ. The scutellum is never wanting. The palpi in most of the genera are very long, but always slender, whence the name Palpicornes, given by Latreille to these insects.

According to the proportions of the joints of the tarsi, four tribes are apparent, which may be separated as follows:—

Middle and hind tarsi with the first joint short;

Prothorax narrowed behind, narrower than the elytra. Helophorini. Prothorax at base as wide as the elytra;

Tarsi compressed; metasternum prolonged into a spine.

Hydrophilini.

Tarsi not compressed; metasternum not prolonged. Middle and hind tarsi with the first joint elongated. Hydrobiini. Sphæridiini.

#### Tribe L-HELOPHORINL

In this tribe are small aquatic species, of an oblong or elongate form, usually of a pale gray color, more or less tinged with bronze or silver. They are found in small pools, and rise to the surface when the water is made turbid.

Maxillæ with both lobes corneous; antennæ 9-jointed, rarely 7-jointed. Tarsi not natatorial; first joint subconnate with the second, frequently indistinct; 2—4 moderate, subequal, the second in Helophorus somewhat longer than the first. Thorax narrower at the base than the elytra; in Helophorus and Ochthebius marked with five sinuous longitudinal striæ; elytra with ten striæ or rows of punctures, except in Hydræna, where the rows are more numerous.

But one genus (Epimetopus, having the eyes emarginate) of this tribe has not occurred in the United states; the others are thus related:—

Last joint of maxillary palpi longer than the preceding;

Antennæ 9-jointed; all the palpi moderately long.

Hydrochus.

Antennæ 7-jointed; labial palpi short. Hydra Last joint of maxillary palpi shorter than the preceding, subulate.

Ochthebius.

Maxillary palpi exceedingly long.

Hydræna.

The last genus has occurred as yet only in the Atlantic States; the other three are found generally distributed over our territories.

### Tribe II.-HYDROPHILINI.

Aquatic species, of an oval or elliptical convex form, olive black, rarely with the sides of the thorax and elytra yellow, the latter not striate.

Maxillæ with both lobes coriaceous; antennæ 9-jointed; middle and posterior tarsi strongly compressed, fringed internally with long hairs; first joint short, second elongated; meso- and metasternum forming a continuous keel, which posteriorly is prolonged into an acute spine; last joint of the anterior tarsi of the male in many species distorted, with very unequal claws; in the same sex the club of the antennæ is sometimes irregular.

Our two genera may be separated as follows:-

Prosternum small, sulcate; metasternal spine long. Hydrophilus.

Prosternum acutely carinate; metasternal spine short. Hydrocharis.

Both genera are represented on each side of the continent: the latter genus is called *Hydrous* by many European authors, which name is more properly a synonym of Hydrophilus: the species of Hydrophilus differ in the proportion of the last joint of the maxillary palpi: in the large species the last joint is shorter than the penultimate; in the small ones (*Tropisternus* Sol.) the joints are equal, or the last is a little longer than the penultimate.\*

The females of this tribe construct a silky cocoon, attached to plants, under the surface of the water.

### Tribe III.-HYDROBIINI.

Aquatic species, of an oval or hemispherical form; the elytra have sometimes ten striæ (Berosus), or a large number of rows of punctures (Laccobius), but usually only a sutural stria. A foreign genus (Amphiops) is remarkable for having four eyes, like Gyrinus.

Many of the species of this tribe have the same general appearance as those of the preceding tribe, but are readily distinguished by the metasternum not being prolonged behind into a sharp spine. They are all of small size.

Maxillæ with both lobes membranous or coriaceous; antennæ sometimes 7- or 8-jointed, usually 9-jointed; middle and posterior tarsi searcely compressed, sometimes slightly ciliate, with hairs; first joint short, oblique; second elongated; meso- and metasternum not forming a continuous carina, the latter not prolonged into a spine.

The following genera, all having five ventral segments, are found in our country:—

Posterior tibiæ and tarsi ciliate; antennæ 7-jointed (scutellum elongated).

Berosus.

Posterior tarsi slightly ciliate; antennæ 8-jointed; posterior trochanters large.

Laccobus.

Tibiæ and tarsi not ciliate; trochanters moderate; antennæ 9-jointed;

<sup>\*</sup> Vide Proceedings of the Academy of Natural Sciences, vol. vii. p. 368, where may be also found a synopsis of the species of this family inhabiting the United States.

Antennæ with first joint very long.

Antennæ with first joint moderate;

Maxillary palpi with last three joints equal.

Maxillary palpi with last joint longest.

Maxillary palpi with the 3d joint longer than the 4th.

Hydrobius.

The type of Sperchopsis is Spercheus tesselatus Ziegler, a very rare insect of the Atlantic district.

In Hydrobius subcupreus the third and fourth joints of the antennæ are closely united, so that I formerly described them as 8-jointed. Cyllidium contains small hemispherical species, remarkable for having the first and second ventral segments covered by large plates, ciliate with hairs proceeding from the base of the abdomen, which thus appears to have but four ventral segments; the hind tarsi are short, by which they are distinguished at first sight from Laccobius.

### Tribe IV .- SPHÆRIDHNI.

Small terrestrial species, of an oval, convex, or hemispherical form, living in the excrements of herbivorous mammals; the color is usually black, with the elytra frequently spotted or margined with yellow; the elytra have ten rows of punctures or striæ, but in Cyclonotum are entirely without striæ. Our species of Cereyon are not yet properly investigated; several of them have been imported from Europe.

Maxillæ with lobes coriaceons, or submembranous; antennæ 9-jointed in our genera; second joint of maxillary palpi thickened; legs not natatorial; first joint of middle and posterior tarsi elongated.

Except Sphæridium,\* all the known genera of this tribe have been found in the United States. They are distinguished as follows:—

Mesosternum narrow;
Mesosternum produced in front.
Mesosternum not produced; prosternum carinate.
Mesosternum very wide;
Prothorax margined.

Prothorax not margined.

CYCLONOTEM.
CERCYON.

MEGASTERNUM. CRYPTOPLEURUM.

<sup>\*</sup> I have a specimen of the European Spharidium scarabacoides, found in Canada. The species is undoubtedly introduced, and accidental in occurrence. It is described by Beauvois under the name S. crenatum. The genus differs from Cercyon by the antennæ having only eight joints.

# FAM. VII.—SILPHIDAE.

Mentum quadrate, sometimes slightly emarginate, frequently with a transverse piece between it and the ligula, which is prominent, emarginate, or bilobed; gular suture distinct.

Maxillæ with two lobes, inner one sometimes with a terminal hook.

Eyes finely granulated, sometimes absent.

Antenne inserted under the margin of the front, behind the base of the mandibles; 11-jointed, rarely 9 or 10-jointed: gradually or suddenly clubbed at the apex, sometimes nearly filiform.

Prothorax with the epimera and episterna not distinct. Mesosternum very short, side pieces attaining the eoxæ. Metasternum large, nearly truncate behind; episterna long;

epimera large, distinct.

Anterior coxe large, conical, contiguous; middle coxe oblique, not prominent, except in Brathinus; posterior contiguous (except in the foreign genus Leptoderus), not extending to the margin of the body, prominent internally, rarely (Clambini) laminate.

Abdomen with six free ventral segments, except in Sphæ-

rites, which has but five.

Legs sometimes thick, subfossorial (Necrophorus), sometimes very slender (Pteroloma); tibiæ with large terminal spurs, the anterior ones of the male usually dilated; tarsi usually 5-jointed; posterior trochanters prominent, or not.

The anomalous form of the middle coxe in Brathinus Lec. requires the division into two sub-families:—

Middle coxæ oblique, not prominent. Middle coxæ conical, prominent.

SILPHIDÆ.
BRATHINIDÆ.

# Sub-Family I.—SILPHIDAE (genuini).

This sub-family contains species which live on decomposing animal matter or on fungi; some species of Catops are found only in ants' nests, while the wonderful genus Leptoderus, not yet found in America, lives in caves; it differs remarkably from other genera of the family by the long cylindrical thorax, the globose, connate

elytra, and the widely separated posterior coxæ. Like nearly all cave insects, it is destitute of eyes. Doubtless, species of this genus remain to reward the scientific explorers of our large western caves.

According to the form of the body, and the position of the posterior trochanters, the following tribes are defined:—

Posterior coxæ simple;

Posterior trochanters prominent (body not globose). Silphini.

Posterior trochanters not prominent (body nearly globose).

Anisotomini.

Posterior coxæ laminate, covering the legs.

CLAMBINI.

## Tribe I.—SILPHINI.

Body never globose, sometimes elongate, usually oval, or even nearly circular, and then usually with a thin margin of the thorax and elytra extending beyond the body; the antennæ are 11-jointed, but with the second joint in one genus (Necrophorus) almost obsolete; with a globose 4-jointed club in that genus, gradually clubbed in the others, with the eighth joint in some genera smaller than the contiguous ones. Epimera of metathorax not covered by the elytra. Posterior coxæ contiguous, or nearly so; their trochanters prominent internally, frequently emarginate or toothed. Tarsi 5-jointed, except in the female of Adelops, where the anterior ones are only 4-jointed.

This sub-family contains the largest insects of the family; the species of Neerophorus are remarkable for the black elytra, truncate at tip, and ornamented with large red spots. They live on dead animals, and a pair of them will bury the body of a small mammal with wonderful rapidity. Silpha is also easily recognized by the rounded outline and thin margin.

Our genera may be thus arranged, in two sub-tribes:—

Abdomen with six visible ventral segments.

Abdomen with five visible ventral segments.

SILPHINI. Sphæritini.

# Sub-Tribe 1.—Silphini (genuini).

Nothing general can be stated in regard to the genera of this sub-tribe; which may be divided, according to the position of the head, into two groups.

Head separated from the thorax, movable. Head immersed in the thorax. SILPHÆ.

## Group I.-Silphæ.

Insects of large or moderate size, living on carrion, compose this group. Pteroloma (which includes Lyrosoma Mann.) and Necrophilus occur only in the Pacific district; the other two genera are found on both sides of the continent.

Our genera are:-

Antennæ with ten apparent joints, club globose, 4-jointed. Necrophorus. Antennæ with eleven distinct joints;

Antennæ clubbed,\* tibiæ armed with spines;

Third joint of antennæ not longer than the second, shorter than the first.

Silpha.

Third joint of antennæ as long as the first. Antennæ nearly filiform, tibiæ not spinous.

NECROPHILUS.
PTEROLOMA.

# Group II.—Catopes.

Insects of small size and usually ovate form; some live on carrion, others in fungi, others in ants' nests. The 8th joint of the antennæ is smaller than the 7th, except in Colon.

Our genera are as follows:—

Eyes wanting (anterior tarsi of Q 4-jointed.) Eyes distinct; ADELOPS.

Antennæ serrate.

Antennæ clubbed;

CATOPTRICHUS.

Eighth joint of antennæ small.

CATOPS.

Eighth joint of antennæ larger than the seventh.

Colon.

Catoptrichus Frankenhaueseri, the type and only species known, is found in Sitkha. Adelops hirtus, the only species yet found in the United States, occurs in the Mammoth Cave, Kentucky; the other western caves will yet furnish other species.

# Sub-Tribe 2.—Sphæritini.

This sub-tribe contains but a single genns, Sphærites, of which but one species in Europe and another (S. glabratus Mann.) in Russian America are known. The form is oblong oval, convex;

<sup>\*</sup> In  $Necrophilus\ tenuicornis$ , however, the antennæ are as slender as in Pteroloma.

the elytra are strongly truncate, and striate; the antennæ are slightly geniculated, with the first joint much elongated; the club is rounded, composed of three joints. The appearance is very similar to Hister.

This genus has been placed by Redtenbacher in Nitidulidæ, but the form of the anterior coxæ is altogether different, and entirely similar to that seen in the present family, in which it is retained by other systematists. But the difference in the abdomen seems to me to indicate a separate sub-tribe.

### Tribe II.—ANISOTOMINI.

Body oval, convex, sometimes hemispherical, sometimes capable of being contracted into a ball. Mandibles with a basal molar tooth. Antenna 11-jointed, clubbed, the eighth joint frequently smaller than the contiguous ones. Epimera and episterna of metathorax covered by the elytra. Posterior coxa contiguous; their trochanters not prominent inwardly. Tarsi variable.

This tribe consists of small species, which live either in decomposing fungi, or under the bark of dead trees.

A. Tarsi with the same number of joints in both sexes; body not at all contractile;

All the tarsi 5-jointed; eighth joint of antennæ small. Hydnobius.\*

Anterior and middle tarsi 5-jointed, posterior 4-jointed;

Mesosternum carinate; eighth joint of antenne small. Anisotoma.

Mesosternum flat; eighth joint of antenne hardly distinct.

CYRTUSA.

Anterior tarsi 5-jointed, middle and posterior 4-jointed; club of antennæ 3-jointed.

Colenis.

B. Tarsi dissimilar in the two sexes; body more or less contractile;

Club of antennæ 5-jointed, eighth joint small.

Liodes.

Club of antennæ 3-jointed.

Agarnidium.

### Tribe III. - CT. A NEERINE.

Body oval, capable of being more or less contracted into a ball. Antennæ 9- or 10-jointed, clubbed. Episterna of metathorax not

<sup>\*</sup> I introduce this genus on the authority of Erichson, who referred (Wiegm. Archiv, 1847, ii. 100) to it *Liodes alternata* Mels., which, however, I find to have only 4-jointed posterior tarsi, and have accordingly placed it in Anisotoma. Nevertheless, it is quite possible that Erichson may have had before him a genuine species of Hydnobius, unknown to me.

covered by the elytra. Posterior coxæ contiguous, dilated into laminæ covering the posterior thighs; trochanters not prominent.

This tribe consists of very minute species, living in decomposing vegetable matter. On account of the extreme minuteness of the insects, the generic descriptions have been very imperfect, and indeed inaccurate; it is only in the works of Redtenbacher, Lacordaire, and Duval that the full characters have been detailed. This fact will account for the confusion regarding the genus Sternuchus, established by me in Agassiz's work on Lake Superior, which I afterwards united with Clambus.

Club of antennæ 3-jointed; coxal plates narrow, dilated internally (body glabrous).

EMPELUS.

Club of antennæ 2-jointed; coxal plates very broad (body usually pubescent);

Antennæ 10-jointed; abdomen with 6 ventral segments. Calyptomerus. Antennæ 9-jointed; abdomen apparently with 5 ventral segments.

CLAMBUS.

The type of Empelus is *Litochrus brunnipennis* Mann. from Sitkha. Having the anterior coxæ contiguous, transverse, conical, and prominent, it cannot be placed in the family Phalacridæ, to which Litochrus belongs, but seems to me to be a very obvious connecting link between Agathidinm and Clambus. To Calyptomerus belongs *Clambus oblongulus* Mann., also from Russian America.

# Sub-Family II.—BRATHINIDAE.

But one genus, Brathinus, is known of this sub-family, which is remarkably distinguished from the genuine Silphidæ by the prominent conical middle coxæ. The two species known to me are found about grass-roots in wet places, from Lake Superior to Nova Scotia, and are small shining insects, of graceful form, less than one-fifth of an inch long.

The head is oval, strongly constricted behind, with the front concave; eyes moderately prominent, oval, somewhat coarsely granulated; the gula behind the mentum is deeply channelled; the maxillary palpi are long and slender, the third joint is one-half the length of the second, and the fourth is longer than the second; the labial palpi are moderately short, with the last joint a little longer. The antennæ are slender, almost filiform, with

three basal joints shining. Mesosternum square, side pieces not visible; metasternum short, side pieces covered by the clytra. Anterior and middle coxæ large, conical, prominent, contiguous; hind coxæ conical, transverse, prominent, contiguous. Legs long and slender; tibial spurs obsolete; tarsi short, 5-jointed; the joints 1—4 of the hind tarsi closely united, diminishing in length; claws moderate, simple.

The head is suddenly constricted behind, forming a neck; the thorax is ovate, convex, not much larger than the head. Elytra ovate, convex, dilated from the base for two-thirds of their length, then broadly rounded. Abdomen with six free ventral segments, the first almost covered by the prominent hind coxe.

I formerly placed this genus in Scydmænidæ, but the different form of the posterior eoxæ and palpi prevents it from retaining that position; while it appears, on the other hand, to constitute a very aberrant form of the present family, or possibly even a distinct family.

# FAM. VIII.—SCYDMÆNIDAE.

Mentum transverse, trapezoidal; ligula small, corneous, emarginate.

Maxillæ with two ciliate unarmed lobes; palpi long, with

the last joint very small.

Antennæ inserted upon the front, at the inner margin of the eyes (except in one foreign genus, Chevrolatia), gradually thickened or slightly clavate.

Eyes composed of large lenses.

Prothorax with the side pieces not distinct; prosternum not visible between the coxe.

Mesosternum elongate, triangular, more or less carinate, side pieces reaching the coxæ.

Metasternum large, side pieces narrow, epimera distinct. Elytra convex, covering the abdomen; wings sometimes wanting.

Abdomen with six free ventral segments.

Anterior coxe conical, prominent, contiguous; middle coxe conical, slightly prominent, somewhat distant; posterior coxe small, conical, widely separated.

Legs moderate, thighs usually clavate, tarsi 5-jointed, claws

simple.

These are small, shining, usually ovate, sometimes slender insects, of a brown color, more or less clothed with creet hairs. They are found variously, near water, under stones, in ants' nests, and under bark, and are frequently seen flying in the twilight.

The general form is that of Pselaphidæ, from which they differ by the long elytra and the conical distant posterior coxæ.

Our genera are:-

Antennæ geniculate; first joint as long as the two following. Microstemma. Antennæ straight;

First joint of labial palpi very short;

Posterior trochanters long, situated in the axis of the thighs.

EUMICRUS.

Posterior trochanters small, on the internal face of the thighs.

SCYDMÆNUS.

First joint of labial palpi distinct;

Prothorax quadrate, not wider than the elytra. Prothorax transverse, wider than the elytra. EUTHEIA. CEPHENNIUM.

Eutheia has occurred in Russian America, and Cephennium in the Atlantic States. Seydmenus is represented by numerous species on both sides of the continent. Eumierus is represented by Eu. Zimmermanni in the Southern States.

# FAM. IX.—PSELAPHIDAE.

Mentum small, corneous, more or less quadrate; ligula very small, membranous, with large diverging paraglossæ; labial palpi very small.

Maxillæ with membranous ciliated lobes, the outer much larger than the inner; palpi usually very long, and 4-jointed.

Mandibles usually broad and short, with the tip curved

and acute.

Antennæ 11-jointed (rarely 10-jointed) in the second subfamily; 1- to 6-jointed in the first, usually clavate, rarely moniliform.

Eyes composed of large lenses, sometimes wanting.

Prothorax with the side pieces not distinct; prosternum almost obsolete between the coxe, coxal cavities open behind.

Mesosternum short, obsolete between the coxæ.

Metasternum large, side pieces simple.

Elytra truncate, short, leaving the abdomen exposed; wings, when present, folded beneath the elytra.

Abdomen with five or six free but not flexible ventral

segments; dorsal segments entirely corneous, free in the second sub-family, the anterior ones connate in the first.

Anterior coxæ conical, prominent, contiguous; middle coxæ rounded, contiguous; posterior coxæ narrow, trans-

verse, usually not contiguous.

Legs long; femora stout; tibiæ usually slender, and without spurs; tarsi short, 3-jointed, the first joint very short, the second long, except in Clavigeridæ and in Faronus; claws simple, sometimes equal, sometimes unequal, and frequently single.

The species of this family are very small, not exceeding one-eighth of an inch, and of a chestnut-brown color, usually slightly pubescent; the head and thorax are most frequently narrower than the elytra and abdomen, which is convex, and usually obtuse at tip. Many are found flying in twilight; their habits at other times are various, some being found in ants' nests, while others occur under stones and bark. North America seems to be rich in this family; more than fifty species are known to me, and several of the genera have not occurred in other countries.

This family approaches closely the Staphylinidæ, but the ventral segments are fewer in number, and not freely moving, and the eyes are composed of large lenses.

According to the structure of the antennæ and abdomen, I divide them into two sub-families, which are regarded as tribes by Lacordaire, groups by Duval, and as families by the German authorities.

Antennæ with less than six joints.
Antennæ 11-jointed, rarely 10-jointed.

CLAVIGERIDÆ.
PSELAPHIDÆ.

# Sub-Family I.—CLAVIGERIDAE.

This sub-family is represented in our fauna, thus far, only by Adranes cacus Lec., found in ants' nests in the upper part of Georgia. The genus Adranes is distinguished by the antennae having but two joints, and by the absence of eyes.

The genera of this sub-family have the head narrow, and the palpi rudimentary, of but one joint; the three anterior dorsal segments are connate, and deeply exeavated, forming a large eavity, at the sides of which, and at the external apical angle of the elytra, are tufts of hair. The ants which support these

insects, by caressing these tufts of hair with their antennæ cause the exudation of a fluid, which they greedily swallow. The first and second joints of the tarsi are very short; the third is long, with a single claw.

## Sub-Family II.—PSELAPHIDAE (genuini).

In these the abdominal segments are all separate, and the antennæ have eleven distinct joints, except in certain species of Bryaxis, where but ten joints exist; they are usually gradually clavate, but in Ceophyllus are composed of equal globular joints.

Two tribes are indicated, as follows:-

Posterior come transverse, not prominent, not contiguous. Pselaphini.
Posterior come conical, prominent, contiguous. Euplectini.

### Tribe I.—PSELAPHINI.

These species are always narrowed in front, and have the characteristic form of this family, while those of the next tribe are slender, linear, and frequently depressed, so as to resemble Staphylinidæ, of the tribe Oxytelini. The form of the hind coxæ at once distinguishes them from the next tribe. The second joint of the tarsi is always long.

According to the insertion of the antennæ, I divide this tribe into two groups:—

Antennæ inserted on two approximate tubercles. Antennæ distant, inserted at the side of the head.

PSELAPHI. BRYAXES.

#### Group. I.—Pselaphi.

In this group the antennæ are approximate, and inserted under a large frontal elevation, which is channelled. The abdomen is strongly margined.

Tarsi with ungues two, equal;

Antennæ moniliform;

Maxillary palpi with the last two joints very transverse and lamelliform. Ceophyllus.

Antennæ clavate; last joints gradually larger;

Maxillary palpi with the third joint transverse, triangular; the fourth larger, convex. CEDIUS.

Maxillary palpi with lateral setiform appendages;

Last joint lunate; abdomen carinate. TMESIPHORUS.

Last joint transverse, similar to the penultimate. Ctenistes.

Maxillary palpi with the last joint oval, with a small terminal seta.

Tyrus

Antennæ with the last joint large, rounded;

Maxillary palpi with the third joint very small; the fourth long, cylindrical.

Cercocerus.

Tarsi with a single unguis; maxillary palpi excessively long;

Maxillary palpi with the last joint club-shaped. Maxillary palpi with the last joint hatchet-shaped.

PSELAPHUS.
TYCHUS.

The anterior trochanters and thighs are armed with acute spines in Ceophyllus and Cedius. Hamotus was founded by Aubé on a species (*H. humeralis*) which I cannot consider as properly separated from Tyrus, and, misled by his description, I subsequently described it as *T. compar*. The genera are all represented in the Atlantic States; thus far only Ctenistes and Tychus have been found in California.

## Group II.-Bryaxes.

The antennæ are distant at base, and inserted at the sides of the head. The palpi have not the extraordinary development seen in the previous group, but the last joint is oval or fusiform.

Abdomen margined; tarsi with a single unguis;

Antennæ with the last three joints larger (body pubescent). Bryaxis. Antennæ short, with the last joint very large (body glabrous).

Eupsenius.

Abdomen not margined; ungues two, unequal.

Batrisus.

With Batrisus I have combined Arthmius Lec., described as having but a single unguis; renewed examination, with a powerful microscope, has shown me that there is a second very small unguis present. The antennæ are frequently very different in form in the sexes of the same species of Bryaxis and Batrisus; these two genera are also represented in the Pacific district.

#### Tribe II.-EUPLECTINI.

The insects of this tribe have a more depressed and linear form than is seen in the preceding tribe, and approach thus to the next family. The antenne are always distant, and the abdomen strongly margined. The posterior coxe are conical, prominent, and contiguous. The abdomen has six distinct ventral segments.

Antennæ geniculate; tarsi with a single unguis.

RHEXIUS.

Antennæ straight;

Tarsi with a single unguis;

Second ventral segment elongated; last joint of anteunæ very large.

TRIMIUM.

Second ventral segment not longer than the third. Tarsi with two equal ungues.

EUPLECTUS. FARONUS.

The last genus is represented by F. Tolulæ in the southern Atlantic States, by F. Isabellæ in California, and by F. parviceps (Euplectus parviceps Mäklin) in Russian America. Trimium has been found in Russian America. The other genera are not represented near the Pacific coast.

## FAM. X.—STAPHYLINIDAE.

Mentum quadrate, usually trapezoidal, the anterior part separate; ligula rarely corneous, usually membranous or coriaceous; paraglossæ usually distinct; palpi usually 3-jointed, rarely (in certain Aleocharini) with four, two, or even one joint.

Maxillæ with two lobes, usually ciliate; palpi 4-jointed,

except in Aleochara, where there are five joints.

Antennæ variable in insertion and form, 11-jointed, rarely 10-jointed.

Eyes usually finely granulated.

Prothorax with the side pieces not separate, prosternum variable in form, coxal cavities usually open behind.

Mesosternum short, side pieces large, epimera distinct.

Metasternum moderately large, side pieces narrow, epimera distinct.

Elytra truncate, leaving a great part of the abdomen exposed, except in certain Omalini; wings, when present, folded under the elytra.

Abdomen with seven or eight visible segments, freely movable, and entirely corneous both above and beneath.

Legs variable in length and form; anterior coxe usually large, conical, prominent, and contiguous, rarely (Piestidæ) rounded, not prominent, or (Micropeplidæ) transverse, not prominent; middle coxe conical, oblique, not prominent, sometimes contiguous, sometimes distant; hind coxe variable in form, contiguous, except in Micropeplidæ, where they are small, rounded, and distant.

Tarsi usually 5-jointed, rarely 4-jointed, and in Micropeplidæ and certain Oxytelini 3-jointed; in many genera of Aleocharini the anterior tarsi are 4-jointed, while the middle and hind tarsi have five joints.

This family embraces a very large number of species, mostly of small size, and in many parts of the body shows a very great range of variation. Genera with short clytra occur in several families of Coleoptera, but in no other are they associated with an entirely corneous abdomen having seven or eight visible segments.

I have separated the family into the same divisions as those adopted by Kraatz in the second volume of the Insecten Deutschlands, but I am not in accord with him in considering them all as of equal value in classification. The form of the anterior coxe seems to me of greater significance than the other characters used in separating the different groups which have been previously called tribes, and I have made the primary division on the form of those organs into sub-families.

The prothoracic breathing-pores (stigmata) are visible in certain tribes (Aleocharini, Tachyporini, Staphylinini), but invisible in the rest of the family. This character is sometimes difficult to perceive; but I have not been able to follow the example of Duval, in excluding it from a primary place in the synoptic table of tribes.

I would divide the family into three sub-families:-

Anterior coxæ prominent; anterior coxal cavities open behind.

Staphylinidæ.

Anterior coxæ not prominent; anterior coxal cavities entire;

Anterior coxæ globose, posterior contiguous.

PIESTIDÆ.
MICROPEPLIDÆ.

Anterior coxe transverse, posterior distant.

# Sub-Family I.—STAPHYLINIDAE (genuini).

This sub-family contains the great bulk of the species, and is much less homogeneous than the other two; the tribes composing it are as follows:—

A. Prothoracic stigmata visible; insertion of the antennæ—
Upon the front, at the internal margin of the eyes. I. Aleocharini.
Under the sides of the front, behind the mandibles. II. Tachyporini.
At the anterior margin of the front, inside of the mandibles.

III. STAPHYLININI.

B. Prothoracic stigmata not visible, covered by the sides of the pronotum;

Posterior cone conical, anterior cone large.

IV. Pæderini.

V. Stenini.

Posterior coxæ transverse;

Anterior coxe large, antennæ geniculate. VI. Oxytelini. Anterior coxæ large, antennæ straight, ocelli two. VII. Omalini. Anterior coxæ transverse, not very prominent. VIII. Proteinini. Anterior coxæ large, antennæ straight, ocelli none.

IX. Phlæcharini.

#### Tribe I .- ALEOCHARINI.

The prothoracie stigmata in this tribe are not covered by the inflexed portion of the pronotum; but, without reference to this character, the insertion of the antennæ upon the front will distinguish the genera from those of all other tribes except the first group of Stenini, and these will be readily known by the small anterior coxæ.

Groups are indicated by the following characters:-

Internal lobe of the maxillæ membranous internally, and ciliate;

Eyes not prominent; third joint of maxillary palpi moderately elongated.

Aleochare.

Eyes prominent; third joint of maxillary palpi thickened. Gyrophene.

Internal lobe of the maxilla elongated, entirely corneous, hooked at the tip, and serrate internally.

Gymnusæ.

#### Group I .- Aleocharæ.

In this group the interior lobe of the maxillæ has the internal margin membranous and ciliate; the maxillary palpi are moderate in length, with the second and third joints moderately elongated, the fourth small, subulate, distinct, and in Alcochara with an additional very small fifth joint. The eyes are never very convex.

The genera of this group are very numerous, and frequently eannot be distinguished without the most close examination, or even dissection; it is consequently impossible, within the limits of a work like the present, to give such characters as will enable the student to recognize them with certainty. Those who are sufficiently advanced to study this group must, therefore, refer to the works of Erichson, Duval, and Kraatz for full information. Several of the genera recently established by Kraatz will probably be found represented in our fauna; but I have confined myself in the table to those actually known to me as occurring.

A. Anterior tarsi 4-jointed; middle and hind tarsi 5-jointed;

Head constricted behind into a narrow neck; first joint of hind tarsi elongated (thorax cordate, usually deeply channelled.) Falagria.

Head not constricted into a narrow neck;

Joints of hind tarsi equal, or slightly decreasing in length;
 Anterior and middle tibiæ strongly spinous externally.

Phytosus.

Tibiæ not spinous;

Labial palpi 3-jointed;

Ligula long, slender, bifid at the extremity; joints of hind tarsi 1—4 equal. Hoplandria.

Lignla short, bifid; joints of hind tarsi 1-4 decreasing in length. Homalota.

Labial palpi very long, two-jointed; joints of hind tarsi 1-4 equal.

Stenusa.

B. Hind tarsi with the first joint decidedly longer than the second;
 a. Maxillæ with inner lobe ciliate internally, with small spines;
 Labial palpi short, 2-jointed.

PLACUSA.

Labial palpi 3-jointed, joints quite distinct;

Antennæ slender; abdomen narrowed in front; ligula short, bifid; labial palpi with the first joint longer, second and third equal.

TACHYUSA.

Antennæ thick; ligula long, bifid at the tip; labial palpi with the second joint shorter.

Bolitochara.

Antennæ thick; ligula elongate, narrow, entire at tip; labial palpi with the first joint shorter and wider than the second.

Philotermes.

 b. Maxillæ with the inner lobe ciliate, with hairs; at the apex with some corneous hooks;

Hind angles of thorax indistinct; abdomen of the usual form.

Hind angles of thorax distinct; sides of thorax and abdomen widely reflexed, the latter with tufts of hair on the sides above.

Atmeles.

B. All the tarsi 5-jointed;

Palpi with a small additional terminal joint. Aleochara.

Maxillary palpi 4-jointed, labial 3-jointed;

Head not narrowed behind; first joint of hind tarsi distinctly elongated.\*

Oxyropa.

Head narrowed behind; first joint of hind tarsi scarcely elongated.

The species of Homolota are very numerous; the other genera are moderate in size, or represented only by single species.

## Group II.-Gyrophænæ.

The species of this group are small, of an oval form, much

<sup>\*</sup> Here belongs the genus Myrmecochara Kraatz (Linn. Ent., xi. 40), but from the description 1 am unable to discover any distinctive character between it and Oxypoda.

broader than those of the previous group, and are easily distinguished by the prominent eyes, and by the third joint of the maxillary palpi being thickened. They live exclusively in fungi, and are gregarious; they are remarkable for the smooth shining surface, almost destitute of hairs or punctures. The anterior tarsi are 4-jointed, and the middle and posterior ones 5-jointed; the first joint of the hind tarsi is elongated; the thorax is distinctly margined. The labial palpi have but two joints.

Our species belong to Gyrophæna, which is distinguished from the other genera of the group by the entire ligula, and the very short second joint of the labial palpi.

## Group III.-Gymnusæ.

In this group the lobes of the maxillæ are long and slender, the inner one is entirely corneous, serrate internally, and hooked at the apex. The maxillary palpi have the second and third joints very long, and the fourth not very distinct. The head is deflexed, pointed in front; the antennæ slender; the thorax and elytra broad, and the abdomen strongly but gradually narrowed behind, so that a form is assumed approaching that of some members of the next tribe.

Labial palpi setaceous, with two indistinct joints; anterior tarsi 4-jointed, posterior ones 5-jointed; ligula short, entire.

Myllena.

Labial palpi large, 3-jointed, last joint very small; tarsi 3-jointed; ligula large, bifid; lobes nearly as long as the palpi.

Dinopsis.

Thus far species have occurred only in the Atlantic States; they are but three in number (one Myllæna, two Dinopsis), and are found in very wet places.

## Tribe II.—TACHYPORINI.

The prothoracie spiracles are visible; the anterior coxæ are large, conical, and prominent, with the trochanters very distinct. The antennæ are inserted under the lateral margin of the front.

The species are usually convex, with the thorax always ample, arched, and highly polished, and the abdomen conical, sometimes very short. They are found partly in fungi, partly under bark.

Our genera are easily distinguished by the following table:-

A. Antennæ 10-jointed, tarsi 4-jointed (body very small, convex).

HYPOCYPTUS.

B. Antennæ 11-jointed (tarsi 5-jointed in all of our genera);

Elytra longer than the breast, equably punctured; ligula not narrowed anteriorly;

Abdomen margined;

Mesosternum carinate; maxillary palpi filiform;

First joint of hind tarsi very long. Leucoparyhus.

First joint of hind tarsi not elongated. Coproporus.

Mesosternum not carinate;

Maxillary palpi filiform. Tachinus.

Maxillary palpi subulate. Tachinus.

Abdomen not margined; body finely pubescent. Conosoma.

B. Elytra as long as the breast, smooth, or with three rows of punctures;

ligula narrowed at the apex;

Maxillary palpi filiform. Bolitobius.

Maxillary palpi with the last joint conical, acute. Bryoporus.

Maxillary palpi subulate. Mycetoporus.

The species of Bolitobius usually have the head much elongated; when, however, the head is oval, they approach closely to the genus Quedins of the next tribe, but are recognized by the antennæ being inserted at the lateral margin of the front, near the eyes, and not at the anterior angle of the frontal margin, as in Quedius.

#### Tribe III.—STAPHYLININI.

In this tribe the spiracles of the prothorax are visible, but the antennæ are situated at the anterior margin of the front, and differ in position in the three sub-tribes. The anterior coxæ are large and conical; the trochanters of the hind legs are prominent; the abdomen is strongly margined.

Lateral margin of the thorax simple.

Lateral margin of the thorax double;

Antennæ distant.
Antennæ approximated.

STAPHYLININI.
XANTHOLININI.

QUEDINI.

## Sub-Tribe 1.—Quediini.

The antennæ are inserted at the anterior point of the lateral margin of the front; the thorax is smooth and glabrous, with but few dorsal punctures (except in Euryporus), and its lateral margin is single and acute, as usual.

The body is usually fusiform, sometimes linear. The species are found in various situations; Quedius under stones and bark in damp forests, Euryporus and Acylophorus near water. The

labrum is usually margined with membrane, and usually, though not always, bilobed.

This sub-tribe is very closely related to the preceding tribe, but the difference in the position of the antennæ will enable the student to avoid confounding them together.

The tarsi are 5-jointed, the middle coxe contiguous, the hind tarsi not dilated, and the maxillary palpi not dilated, in all of our genera.

Antennæ geniculate, the first joint elongated. Acylophorus. Antennæ geniculate, first joint moderate; anterior tarsi narrow.

Antennæ straight, first joint moderate; anterior tarsi dilated;
Prothoracic spiracles uncovered; palpi subulate.
Prothoracic spiracles covered, palpi filiform.

Euryporus.
HETEROTHOPS.
QUEDIUS.

### Sub-Tribe 2 .- Staphylinini (genuini).

The antennæ are inserted on the anterior margin of the front, inside of the base of the mandibles, but distant from each other. The thorax is more or less convex, frequently densely punctured, with the lateral margin double; the prothoracic spiracles are always visible and uncovered; the labrum is always bilobed; the antennæ are never geniculate. The suture is imbricate only in Thinopinus.

The species live on decomposing animal and vegetable substances, or on excrements; rarely (Thinopinus) on the shores of the ocean, below high-water mark. Some of them are the largest of the family.

The genus Staphylinus, as set forth by Erichson, has been dismembered by later authors, to form several of the genera below mentioned.

A. Maxillary palpi with the fourth joint shorter than the third;

Thorax smooth, narrowed at the base;

Middle coxæ contiguous, suture imbricated, wings none.

Middle coxe distant, suture straight.

Thinopinus.
Creophilus.
Thorax punctured, pubescent, narrowed at the base. Listotrophus.

B. Maxillary palpi with the fourth joint equal to or longer than the third;
 Marginal lines of the thorax separate, wings none.
 Marginal lines of the thorax separate, wings distinct, last joint of la-

bial palpi truncate.

Trigonophorus.

Marginal lines of the thorax united near the apex, body winged; Ligula emarginate; Middle coxe slightly separate; abdomen narrowed at tip (thorax punctured, pubescent).

Staphylinus.\*

Middle coxe contiguous; abdomen very long, parallel. Ocypus.

Ligula entire;

Femora unarmed. Femora spinous beneath. PHILONTHUS.
BELONUCHUS.

### Sub-Tribe 3.-Xantholimini.

The antennæ are inserted near the middle of the anterior margin of the front, and approximated; they are geniculate in our genera; the thorax is long and rectangular, with rows of punctures, of which the outer ones are curved; the lateral margin is double, and the prothoracic spiracles are uncovered. The head is usually equal in size to the thorax, and is narrowed behind into a small neck. The suture of the elytra is imbricated in our genera when the antennæ are strongly geniculate.

The species are found under moss in woods, under stones, and bark.

A. Antennæ strongly geniculated; suture imbricated; middle coxæ distant;
Palpi filiform, last joint longer. Xantholinus.

Palpi with the last joint subulate.

Leptacinus.

Palpi with the last joint very small, subulate; upper marginal line of prothorax obsolete.

Leptolinus.

B. Antennæ feebly geniculated; suture entire;

Thorax oblong, elytra with the sutural stria obsolete.

Othurs.

Thorax oblong, elytra with a deep sutural stria.

Baptolings.

Thorax narrowed in front, elytra with a deep sutural stria. Diochus.

#### Tribe IV.-PÆDERINI.

In this tribe the prothoracic spiracles are invisible, being covered by the sides of the pronotum; the space behind the coxe is corneous in some, membranous in others; the anterior coxe are large, conical, and prominent; the posterior coxe also conical and prominent; the antenne are inserted under the sides of the front; the mandibles are long and slender; the palpi with the last joint usually minute. The abdomen is margined in all of our genera, and the tarsi are 5-jointed. The hind trochanters project inwards but slightly. The head is always narrowed suddenly behind, forming a distinct neck.

<sup>\*</sup> The acetabula are always separated by the mesosternum, which is, however, frequently exceedingly narrow; they are confluent in Ocypus.

Two groups, considered by Erichson as tribes, and reunited by Kraatz (Insecten Deutschlands, II), may be formed:—

Palpi with the last joint very small, subulate. Palpi with the last joint equal to the preceding.

Pæderi. Pinophili.

#### Group I .- Pæderi.

The genera of this group are numerous, and are found under bark, under stones, and near water. The form of the palpi readily distinguishes them from the second group.

A. Hind tarsi with the fourth joint not lobed (prosternum behind the coxe membranous):

Antennæ geniculate.

Скуртовиим.

Antennæ straight;

Hind tarsi with the joints 1-4 nearly equal;

Thorax subquadrate; labrum bilobed.

Thorax narrowed in front; labrum 4-toothed.

Lathrobium.

Scopæus.

Hind tarsi with the joints 1-4 decreasing gradually in length;

Thorax narrowed in front;
Labrum 4-toothed (last two segments of abdomen elongated).

Echiaster.

Labrum with two acute teeth.

STILICUS.

Thorax subquadrate;
Labrum with two small teeth.

Lithocharis.
Dacnochilus.

Labrum rounded, emarginate at tip. Labrum entire, elytra very short.

Liparocephalus.

B. Hind tarsi with the fourth joint lobed;

Last joint of maxillary palmi slender.

Last joint of maxillary palpi slender, very minute; Elytra longer than the thorax.

Elytra shorter than the thorax.

STILICOPSIS.

Last joint of maxillary palpi obtuse.

Pederus.

SUNIUS.

# Group II.—Pinophili.

Very elongated cylindrical species, sometimes of large size, and found under bark of trees; some species of Palaminus are also found on leaves of trees. Our genera are but two, both of wide distribution:—

Abdomen distinctly margined. Abdomen not margined.

PINOPHILUS.
PALAMINUS.

#### Tribe V.—STENINI.

In this tribe the prothoracic spiracles are concealed by the inflexed portion of the pronotum; the anterior coxe are small,

conical, and prominent, and the posterior ones are conical and prominent. The antennæ are straight, with the last three joints larger than the preceding; the insertion varies in the different groups; the trochanters are simple. The second ventral segment is marked with two short ridges. The first joint of the maxillary palpi is nearly as long as the second.

Three groups, according to the insertion of the antennæ, are obvious:—

Antennæ 11-jointed, inserted on the front, between the large eyes. Steni. Antennæ 11-jointed, inserted on the front, in front of the moderate eyes.

EU.ESTHETI.

Antennæ 10-jointed, inserted under the lateral margin of the front.

MEGALOPES.

## Group I.-Steni.

The eyes are very large and prominent in this group, so that the head resembles that of Cicindela; the antennæ are inserted upon the front, between the eyes. The labrum is entire, and rounded anteriorly. The tarsi have five distinct joints.

Two genera, both represented in our fauna, are known:—
Paraglossæ connate, indistinct (body finely punctured).
Paraglossæ dilated, rounded (body coarsely punctured).

Stenus.

The species of this tribe are found running on mud near water; those of Stenus are numerous, and, according as the abdomen is margined or not, and the fourth tarsal joint simple or bilobed, may be arranged in natural groups; the genus is represented ou both sides of the continent. Of Dianous but two species are known; one is European, the other was found by me on the southern shore of Lake Superior.

The ligula is attached by a loose membrane in Stenns, and after death is frequently protruded to a distance equal to half the length of the body.

#### Group II .- Euæstheti.

But two genera, containing only a few species, compose this group. They are insects of very small size, found on flowers.

The eyes are moderate in size, and but slightly prominent; the antenna are inserted on the front, before the eyes, at the base of the labrum, which is denticulate anteriorly. The tarsi are 4-jointed.

Body punctured. Body smooth.

ELESTBETUS. EDAPHUS.

The species, thus far, are found only in the Atlantic district. Edaphus possesses but one species, *E. nitidus*, from Louisiana; it is remarkable for simulating in appearance a Pselaphide of the tribe Euplectini. The head is marked with two deep foveæ, and at the base of the thorax are three others. The upper surface is smooth, and the elytra are slightly pubescent; the color is uniform, yellowish red.\*

## Group III.-Megalopes.

This group contains but a single genus, Megalops, having the eyes yet larger than in Stenus, and the thorax coarsely, irregularly punctured, and marked with a few lateral transverse furrows. The antennæ are inserted (as in the next tribe) under the lateral margin of the front, but are formed as in Stenus, except that they have but ten joints; the tarsi are 5-jointed.

Two species are known to me from the Atlantic district; they are found under the bark of trees, and are very rare.

#### Tribe VI.-OXYTELINI.

The prothoracic stigmata are covered by the inflexed portion of the pronotum; the anterior coxe are large, conical and prominent; the second ventral segment is without any ridges. The antennæ are more or less geniculated, 11-jointed, and are inserted under the lateral margin of the front; the first joint of the maxillary palpi is short.

I would arrange our genera in three groups, as follows:--

Middle coxæ at the sides of the breast.

Middle coxæ contiguous, or nearly so;

OXYPORI.

date coxæ contiguous, or nearly Abdomen not margined.

OSORII.

Abdomen margined.

#### Group I.—Oxypori.

But a single genus is known, Oxyporus, found in fungi. The head is very large, with the eyes small, not prominent, the mandibles long and decussating, not dentate; the mentum is armed

<sup>\*</sup> In a hind leg of this species, mounted by me in Canada balsam, there is an appearance, under the lens of a compound microscope, that the first joint of the tarsi projects beneath, in the form of a membranous lobe. This structure is so anomalous in the present family, that I can scarcely believe my eyes: but not having the power of examining other specimens, I here simply state the apparent fact, for the observation of future students.

with a medial bifid tooth; the last joint of the labial palpi is lunate; the middle coxe are very widely separated, and the tarsi are 5-jointed. The abdomen is strongly margined.

Thus far the species have been found only in the Atlantic region.

## Group II .- Osorii.

The group is represented by a single species, Osorius latipes, found under bark on the Atlantic slope, as far as the Rocky Mountains.

The body is cylindrical, the middle coxe are contiguous, the tarsi are 5-jointed, and the abdomen is not at all margined. The ligula is corneous. The mandibles are stout, but not toothed.

The genus Osorius is distinguished from the foreign Holotrochus by the anterior tibiæ being armed with spines.

## Group III .- Oxyteli.

The body is either cylindrical or depressed, and the abdomen is strongly margined; the middle coxe are contiguous, or nearly so; the tarsi are 3-jointed in all of our genera, except Syntomium. The ligula is membranous, and the mandibles are toothed. species are found partly in wet places, partly (Platystethus and certain Oxytelus) in dung and other decomposing material.

### Tarsi 3-jointed;

Front tibiæ with two rows of spines, (body cylindrical). Front and middle tibiæ with one row of spines, (body depressed).

Front tibiæ with one row of spines, (body depressed);

Middle coxæ separated.

OXYTELUS.

Middle coxæ contiguous.

HAPLODERUS.

All the tibiæ without rows of spines;

Hind tarsi longer than half the tibiæ, (body glabrous). Apocellus. Hind tarsi shorter than half the tibiæ, (body pubescent);

Scutellum not visible.

TROGOPHLŒUS.

Scutellum distinct:

Maxillary palpi with the last joint conical acute, ocelli none. Ancyrophorus.

Maxillary palpi with the last joint elongate, ocelli distinct.(!)

Distemmus.

Tarsi 5-jointed; antennæ with the last three joints wider. Syntomium.

To Aneyrophorus I refer Trogophlaus planus Lee.; the last joint of the maxillary palpi is as long, or nearly so, as the third, and is conical and acute. Distemmus is founded upon T. Argus Lec. Both of these species are from Lake Superior. Syntomium is represented in Russian America. The other genera are found on both sides of the continent.

## Tribe VII.-OMALINI.

In this tribe the prothoracic spiracles are concealed by the inflexed portion of the pronotum; the prosternum behind the coxe is membranous; the anterior coxe are conical and prominent, the posterior ones transverse; the hind trochanters are on the internal margin of the thighs; the tarsi are 5-jointed; the palpi are filiform, except in Coryphium, where they are subulate; the head is furnished behind with two simple lenses or ocelli, which are usually placed on a line joining the posterior margins of the eyes. The antennæ are inserted under the lateral margins of the front. The second ventral segment is carinate at the base.

The genera are numerous, and are best distinguished by the parts of the mouth, which are not to be examined without dissection. For a full account of the differences between the genera the student must refer to the second volume of the Insecten Deutschlands, by Kraatz. The following characters may enable him to recognize those of our fauna:—

 A. Maxillary palpi with the last joint long or moderate; posterior tarsi with joints 1—4 of unequal length; elytra moderate;

Mandibles toothed; tibice not spinous; hind tarsi with the first joint elongated;

Maxillary palpi with the last joint not elongated. Anthophagus.

Maxillary palpi with the last joint three times as long as the preceding.

Lesteva.

Mandibles not toothed;

Tibiæ spinous; hind tarsi with the first joint elongated. Acidota.

Tibiæ not spinous: hind tarsi with the first and second joints equal;

Lobes of the maxillæ elongate, corneous.

OLOPHRUM.

Lobes of the maxillæ membranous. Lathrimæum.

Tibiæ spinous; hind tarsi with the first and second joints elongated, not equal, first very long.

Amphicuroum.

not equal, first very long.

Amphichroum.

Tibiæ not spinous; hind tarsi with the first joint slightly elongated;

one mandible toothed. Porrhodites.

B. Maxillary palpi with the last joint small, subulate. Coryphium.

C. Maxillary palpi with the last joint long; hind tarsi with the joints 1-4 short, equal;

Tibie very finely spinous; elytra long.

Tibiæ not spinous; elytra long.

Elytra very short.

OMALIUM.
ANTHOBIUM.
MICRALYMMA.

Lathrium *Lec.* is not sufficiently distinct from Olophrum, and the species *L. convexicolle* from Lake Superior greatly resembles *O. convexum* Mäklin from Russian America.

## Tribe VIII.-PROTEININI.

This tribe contains a very small number of species, approaching closely to the preceding tribe, but differing by the prosternum being corneous behind the coxe, and by the head having no occllus in our genera, and but one in certain foreign genera. The antennæ are inserted under the sides of the front; the anterior coxæ are transverse, subconical, and somewhat prominent; the hind coxæ are transverse; the hind trochanters are at the inner margin of the thighs; the tarsi are 5-jointed. The species live in fungi and under bark.

Our two genera without frontal occllus are distinguished by the form of the antennæ.

Antennæ with the joints 9—11 larger.
Antennæ with the eleventh joint only larger.

PROTEINUS.
MEGARTHRUS.

The latter genus is further remarkable for having the sides of the thorax frequently with an angle behind the middle; the thorax is also always channelled.

#### Tribe IX.—PHLEOCHARINI.

This tribe consists also of a very small number of species, of slender, depressed form, and is represented in our fauna only by the genus Olisthærus, found in the northern regions, from Canada to Russian America, under bark.

The prothoracic spiracles are covered; the thorax behind the anterior coxæ is membranous; the latter are conical and prominent, and the hind coxæ are transverse; the hind trochanters are on the internal margin of the thighs; the tarsi are 5-jointed.

The antennæ are inserted under the sides of the front, straight, 11-jointed, searcely thickened externally. The second ventral segment is longitudinally elevated at the middle.

It will thus be seen that this tribe differs from Omalini by the absence of ocelli, and from Tachyporini only by the prothoracic spiracles being covered.

In Olisthærus the anterior tarsi are not dilated, and the maxillary palpi are filiform.

## Sub-Family II.—PIESTIDAE.

Insects having a slender and frequently very depressed form, living under bark. The prothoracic spiracles are covered, and the whole prosternum is corneous, and in some genera separates the anterior coxe so that the coxal cavities become entire. The antenna are situated under the sides of the front, straight, slightly thickened externally. The second ventral segment is longitudinally elevated at the middle.

In this sub-family the present family shows its strongest tendency towards the collective Clavicorn families in Cucujidæ; in the next we will find this tendency towards another member of the same series. Our genera are as follows:—

#### A. Anterior coxæ contiguous;

Abdomen margined, tarsi 5-jointed;

Anterior tibiæ spinous, abdomen broadly margined;

Maxillæ with the outer lobe dilated; (elytra striate).

Prognatha.

Maxillæ with the outer lobe not dilated; (elytra punctate).

Hypotelus.

Anterior tibiæ not spinous, abdomen narrowly margined.

Isomalus.

Abdomen not margined, tarsi 3-jointed; (thorax and elytra costate).

GLYPTOMA.

B. Anterior coxæ separated, abdomen not margined, tarsi 5-jointed.

LISPINUS.

# Sub-Family III.—MICROPEPLIDAE.

This sub-family consists of a single genus, containing small subquadrate species, having the thorax, elytra, and abdomen ornamented with acutely elevated ribs; the antennæ are inserted under the sides of the front, 9-jointed, and terminate in a small elub received into cavities on the under surface of the prothorax; the prosternum is entirely corneous. The anterior coxæ are transverse, not prominent, the hind ones distant, rounded; the tarsi are 3-jointed. The second ventral segment is broadly dilated at the middle, and separates the hind coxæ.

This sub-family thus completes the approach of the Staphylinidæ towards the Clavicorn series in Histeridæ.

## FAM. XI.—HISTERIDAE.

Mentum corneous, sometimes large and covering the base of the maxillæ, flat or slightly concave, subquadrate, sometimes emarginate or tridentate in front; ligula almost concealed behind the mentum; palpi 3-jointed, cylindrical.

Maxillæ with two ciliated lobes, the internal one much

smaller; palpi 4-jointed, cylindrical.

Antennæ geniculate, capable of being retracted, short, in the second sub-family with the first joint thick, but in the first with the first joint long, the eighth and following ones forming a compact, annulated, rounded, or (rarely) triangular club.

Prothorax closely applied to the elytra; side pieces not distinct;\* in most of the genera with two cavities to receive the club of the antennæ; prosternum frequently lobed in front, produced behind, articulating with the mesosternum; coxal cavities open behind.

Mesosternum separating widely the middle eoxæ; side

pieces large, not divided, sometimes visible from above.

Metasternum very large, almost connate with the mesosternum anteriorly; episterna sometimes narrow, sometimes broad, occasionally curved; epimera broad, large, separated by a fine suture, which is sometimes effaced.

Elytra truncate behind, leaving two segments of the abdomen uncovered; scutellum small in the first sub-family,

entire in the second.

Abdomen with five free ventral segments, the first very large, the fifth very short, closely applied to the last dorsal

segment, which is triangular and deflexed.

Anterior coxæ transverse and not prominent in the first sub-family, globose in the second; middle and posterior coxæ widely separated, not prominent, rounded, or rather subquadrate, the latter not extending to the sides of the body.

Legs short, retractile; tibiae compressed, anterior ones usually toothed, posterior sometimes toothed; spurs distinct, those of the anterior pair very unequal. Tarsi slender, short, 5-jointed in the first sub-family (except in Acritus, where the posterior ones are 4-jointed), 4-jointed in the second sub-family; claws (in all of our genera) two, simple; anterior tarsi usually received in grooves on the anterior face of the tibiae.

<sup>\*</sup> In some species there is an elevated line, simulating a suture.

A very well defined family of insects, moderately numerous, nearly all of a shining black color, with the elytra variously sculptured with striæ; some few species of Hister and Saprinus have the elytra marked with red, and a few of the latter genus are metallic in color. The form of body is variable; those of the first group are oblong and flat, with prominent mandibles; the others are round, oblong, oval, globose, some depressed and some convex. The species live under bark of trees, in excrements, and in carcasses. When touched, the insects retract the antennæ and feet, appearing as if dead.

The metasternum is marked by two distant lines diverging posteriorly, and the first segment of the abdomen with two similar ones.

The genera in this family appear to me to have been multiplied unnecessarily by later authors. I accordingly have made, when necessary, two tables, one of the genera as understood in the great monograph of Marseul, the other of those which appear to me to be entitled to real generic distinction.

The family may be divided into two natural sub-families, as follows:—

Antennæ with the first joint very long; elytra truncate.

HISTERIDÆ.

Antennæ with the first joint very thick; elytra entire.

MURMIDHDÆ.

# Sub-Family I.—HISTERIDAE (genuini).

The geniculate antennæ, with the first joint elongated, and the truncate elytra permitting the last two dorsal segments of the abdomen to be visible, sufficiently distinguish this sub-family from the next.

It is divided, following the example of Lacordaire, into two very natural tribes, according to the position of the head in repose:—

Head porrected. Head retracted, bent downwards. HOLOLEPTINI. HISTRINI.

### Tribe I.—HOLOLEPTINI.

Body very much depressed above and below; head extended, with long, prominent mandibles; antennæ inserted under the sides of the front, the club not received in definite prosternal cavities;

mentum emarginate, entirely covering the base of the maxillæ in our species; prosternum not lobed in front.

These species live under the bark of trees; some of them I have found in California in decomposing stems of Cactaceæ.

The genus Hololepta, the only one within our territories, is distinguished by the mandibles not toothed, the pygidium small and perpendicular. It is divided into two by Marseul, according to the following characters:—

Prosternum not narrowed in front, mentum flat. Hololepta.

Prosternum narrowed in front and rounded, mentum with an M-shaped elevated line.

Lionota (Lioderma).

If, however, these characters be considered as valid, then other genera must be established for Californian species. I prefer regarding them as one genus, in which are five groups:—

- a. Mentum nearly flat; prosternum broad, flat. II. fossularis, &c.
- b. Mentum flat; prosternum narrowed and rounded at tip. II. princeps.
- c. Mentum concave, without elevated lines; prosternum slightly narrowed, truncate, and slightly emarginate at tip.  $\it H. vicina.$
- Mentum slightly concave, with fine lines; prosternum slightly narrowed, broadly rounded at tip. II. platysma.
- e. Mentum concave, with strongly elevated lines; prosternum narrowed, almost acute at tip. H. cacti.

#### Tribe II.-HISTRINI.

Head retracted, deflexed; mandibles capable of being applied to the anterior edge of the prosternum, so as to conceal the mouth; mentum subquadrate, not covering the base of the maxillæ.

This tribe is again formed of two sub-tribes, which differ by the presence or absence of an anterior prosternal lobe; nevertheless, in our species of Tribalus, the lobe is so short and broad that they were considered by me as a distinct genus, Cærosternus, and placed in the second sub-tribe. Onthophilus is placed by Marseul and Duval in the first, by Lacordaire in the second sub-tribe.

Prosternum lobed in front.
Prosternum truncate in front.

HISTRINI. SAPRINI.

## Sub-Tribe 1.—Histrini (genuini).

The genera of this sub-tribe live in excrements, or under the bark of trees; one genus (Heterius) is found only in the nests of ants, early in spring. According to my views, modified by consulting the authors above mentioned, they may be thus arranged:—

A. Antennal cavities on the anterior part of the prosternum; (all the tarsi have two claws in our genera);

Antennie inserted under the margin of the front; mandibles prominent;

Antennæ inserted upon the front; mandibles retracted; 4

2 Mesosternum emarginate, rarely truncate; club of antennæ round, annulated. Hister.

Mesosternum slightly prominent at the middle, received by the prosternum;

3 Club of antennæ round, annulated. Phelister. Club of antennæ obconical, truncate, solid. Hetærius.

4 Antennal cavities under the angle of the thorax; club round, annulated; 5

Antennal cavities at the angle of the thorax itself; club of antennæ annulated, truncate.

TRIBALUS.

5 Pygidium inflexed, thorax and elytra costate, prosternal lobe obsolete.
Onthophilus.

Pygidium deflexed, elytra striate. Epierus.

B. Antennal cavities at the middle of the inflexed portion of the prothorax, near the sides.

Mesosternum emarginate, receiving the base of the prosternum; 3
Mesosternum truncate, slightly prominent at the middle, received by
the prosternum; 2

2 Prosternal lobe short, broad; pygidium inflexed; body globular.

BACANIUS.

Prosternal lobe long, rounded; pygidium vertical; body globular, margined.

Spheroderma.

3 Posterior tibiæ broad; anterior tibiæ with a small terminal spur; body oval, convex.

Dendrophiles.

Posterior tibiæ narrow; anterior tibiæ with a very large terminal spur; body oblong, sometimes depressed.

PAROMALUS.

To Sphæroderma must be referred Bacanius marginatus Lee.\* The occurrence of the genus here is remarkable, as the only other species is found in Madagascar. The genus Hister, as above defined, includes all the divisions of my scheme in Proc. Acad. Nat. Sci., vi. 39, except 12 and 13, which form Phelister, regarding the generic value of which group I still entertain some doubts. Hister corticalis Lee., placed by me in division 12, has been very properly removed by De Marseul to Carcinops, a division of Paromalus. Hister, as above defined, contains several of the genera adopted by De Marseul, which are separated by the following characters:—

Anterior tibiæ with the tarsal groove well defined, often sinuate; (a single range of small spines on the middle and posterior tibiæ);

<sup>\*</sup> Proc. Acad. Nat. Sci. Philad., vi. 292.

Prosternal lobe very prominent;

Anterior tibiæ with an internal tooth near the base.

Anterior tibiæ without any internal tooth.

Prosternal lobe narrow, not very prominent.

CYLISTIX.

PLATYSOMA.

OMALODES.

Anterior tibiæ with the tarsal groove badly defined, straight;

Middle and posterior tibite with a single range of spines. PSILOSCELIS. Middle and posterior tibite with two ranges of spines. Hister.

The student who will consult my paper above cited will see that there are good reasons for regarding the characters here given as not of generic value.

The genus Paromalus, as above defined, is divided by Marseul into two:—

Elytra striate; body oval, subconvex.

CARCINOPS.

Elytra not striate; body oblong, subdepressed.

PAROMALUS.

But these divisions are not adopted by Lacordaire and Duval.

## Sub-Tribe 2.—Saprini.

Some of the genera of this sub-tribe live under bark and in excrements, also under stones; but the numerous species of Saprinus are found mostly in carcasses.

Our genera are the following:-

Antennæ inserted under the margin of the front; antennal cavities at the sides of the prosternum proper.

Saprings.

Antennæ inserted on the front; antennal cavities at the sides of the under surface of the prothorax;

Body cylindrical; tibiæ toothed. Teretrius.

Body oblong; thorax with a deep groove each side; tibiæ not toothed.

PLEGADERUS.

Body round; posterior tarsi 4-jointed; tibiæ not toothed. Acritus.

The species of the last genus are the most minute of the family, and are quite numerous in North America.

The European species, formerly enrolled in Saprinus, S. rotundatus and piceus, were found by Duval to have the inner lobe terminated by a corneous hook, and were therefore placed as a distinct genus, Gnathonens; to the same genus belong S. deletus Lec., identical with the European rotundatus, and S. interceptus Lec.; they differ from genuine Saprini by the head having no stria; the sutural stria does not join the first dorsal, and is very short; the epipleuræ have three striæ. I have not adopted the genus, as these differences do not appear to me of sufficient consequence.

# Sub-Family II.—MURMIDIIDAE.

This sub-family consists of but a single species, Murmidius ovalis (Ceuthocerus advena Germar), diffused by commerce over the whole globe; it is a very minute, brown, slightly pubescent insect, of a rounded, depressed form, with rows of large punctures on the elytra.

The antennæ have but ten joints; the first joint is large and thick, the second somewhat narrower; the club is received in a cavity excavated at the anterior angle of the thorax; the anterior coxæ are globose; the prosternum is very wide, flat, and its anterior lobe is very short; the mesosternum is very wide, truncate in front, fitting closely to the prosternum; elytra rounded at tip, entirely covering the dorsal segments of the abdomen.

This insect is very rare. I have seen but two specimens found in this country, and for the one in my possession I am indebted to Mr. Ulke. It is said by European authors to live in old rice.

## FAM. XII.—SCAPHIDIIDAE.

Mentum large, quadrate; ligula membranous, without paraglossæ; palpi 3-jointed.

Maxillæ exposed at the base, with two membranous lobes;

palpi short, 4 jointed, with the last joint conical.

Antenne inserted at the margin of the front, which is suddenly contracted and prolonged into a short beak, capillary, or slightly clavate, the last five or six joints wider than the preceding ones, the eighth sometimes smaller than the seventh and ninth, the first and second thicker than the third.

Prothorax with the side pieces not separate; prosternum not prolonged; coxal cavities rounded, widely open behind,

completed by the mesosternum.

Mesosternum frequently prominent or carinate, side pieces usually divided by an oblique line; metasternum very large, side pieces narrow, epimera not visible.

Elytra broadly truncate behind, not covering entirely the

abdomen.

Abdomen with five free ventral segments; the fifth conical, as long as the three preceding ones; sixth usually visible, and when emarginate, as in certain males, permitting the

seventh or even the eighth internal ones to be seen; the last three or four dorsal segments are entirely corneous.

Anterior coxe large, cylindrical, prominent, contiguous; middle coxe small, rounded, widely separated; posterior coxe oval, usually widely separated.

Legs slender; tarsi 5-jointed, long, filiform; claws slender,

simple.

This family contains small oval or rounded oval, convex, very shining insects, living in fungi. The sides of the thorax are oblique, and the head small, so as to make the body somewhat pointed in front; the thorax is very closely applied to the trunk, and the elytra are broadly truncate, permitting the tip of the conical abdomen to appear. All the known genera of the family, except Amalocera, are represented in our Atlantic fauna, but Scaphisoma alone has yet been obtained on the Pacific slope.

I. Scutellum distinct; antennæ clavate;

Posterior tibiæ not spinous;

First joint of posterior tarsi longest; eyes emarginate. Scaphidium. First joint of posterior tarsi scarcely longer than the second; eyes entire.

Scaphid.

Posterior tibiæ with rows of small spines; eyes entire. CYPARIUM.

II. Scutellum covered by the base of the thorax; antennæ capillary;

Posterior coxæ widely distant;

Antennæ with the joints 9—11 wider. Antennæ with the joints 6 or 7—11 wider. Beogera. Scaphisoma.

Posterior coxe not widely distant; body narrow, compressed.

TOXIDIUM.

# FAM. XIII.—TRICHOPTERYGIDAE.

Mentum quadrate.

Maxillæ exposed at the base, which is large, with two lobes, the inner one ciliate and hooked; palpi 4-jointed, last joint acicular.

Antennæ inserted at the margin of the front, 11-jointed, verticillate with long hairs, the first and second joints thick, 3—7 slender, 8—11 thicker, forming a loosely articulated, elongate club.

Prothorax with the side pieces not distinct.

Elytra sometimes entire, sometimes abbreviated; wings long, narrow, margined with very long hairs; sometimes wanting.

Abdomen with seven free ventral segments.

Anterior coxæ prominent, subglobular, contiguous; middle coxe oval, not contiguous; posterior transverse, more or less separated, sometimes dilated over the feet into a flat plate.

Legs moderate, slender; tarsi 3-jointed, last joint with a

long bristle with a elubbed tip between the ungues.

The insects of this family are the smallest Coleoptera known; those found in this country have not yet been studied with care, and but few are described, although there are in my collection twenty-eight species.

All the genera of the family are represented in our fauna, as

Posterior coxæ approximated, laminate; first ventral segment acuminate in Nossidium.\*

Posterior coxe widely distant; first ventral segment truncate in front;

Antennæ with the last three joints thickened;

Posterior coxe laminate (body pubescent). Posterior coxæ simple (body pubescent).

Antennæ with the last two joints thickened.

Тепснортектя. PTILIUM. PTENIDIUM.

# FAM. XIV.—PHALACRIDAE.

Mentum corneous, flat, of a different form in each genus,

but all derived from the quadrate form.

Maxillæ with two lobes, internal one coriaceous, with two small terminal teeth; the outer corneous, eiliate at the tip, which is coriaceous.

Antennæ inserted under a slight frontal margin, 11-jointed,

the last three joints forming an oval club.

Prothorax with the side pieces not distinct; prosternum prolonged, entering the emarginate mesosternum behind; coxal cavities not closed behind.

Mesosternum very short, side pieces large, not distinctly

divided.

Metasternum large, produced anteriorly, side pieces narrow, partly concealed by the sides of the elytra.

Elytra rounded at tip, entirely covering the abdomen.

Abdomen with five free ventral segments, not differing

much in length, the first somewhat longer.

Anterior coxæ globular; middle coxæ transverse, separated by the sternum; posterior contiguous, transverse, flat.

<sup>\*</sup> I do not possess any species of this genus. One was discovered by Mr. Motschulsky, in Alabama.

Legs short, stout; thighs broad, compressed; tarsi 5-jointed, with the first three joints hairy beneath, and more or less dilated, the fourth very small, fifth moderate; claws with a basal tooth.

A small number of oval or rounded oval, convex, shining insects constitute this family. They are found on flowers, and sometimes under bark. The elytra have sometimes approximate rows of small punctures, but more usually only a sutural stria. The scutellum is larger than usual, triangular. One of the four genera (Tolyphus) of this family is wanting in our fauna. The other three are separated by the form of the posterior tarsi.

Anterior and posterior tarsi of the same length (tibiæ without spurs).

Phalacrus.

Posterior tarsi elongated (tibiæ with distinct spurs); First joint of posterior tarsi shorter than the second. First joint of posterior tarsi longer.

OLIBRES. LITOCHRUS.

# FAM. XV.—NITIDULIDAE.

Mentum transverse, subquadrate, composed of two pieces closely united together, frequently rounded, sometimes sinuate or emarginate in front.

Maxillæ usually exposed, rarely covered at the base; usually with only one lobe, the outer lobe being wanting;

but in the first tribe the outer lobe is distinct.

Antennæ inserted under the margin of the front, 11-jointed (the eleventh indistinct in Rhizophagus), terminated by a round or oval club, composed of three, rarely of two joints.

Prothorax sometimes closely applied to the elytra, sometimes passing over their base; prosternum frequently produced behind, side pieces not distinct; coxal cavities open or closed.

Mesosternum separating the middle coxæ, side pieces with the epimera large, extending to the coxæ.

Metasternum short, side pieces narrow, epimera not visible.

Elytra sometimes truncate, sometimes entire.

Abdomen with five free ventral segments, the first a little

longer, widely produced between the posterior coxæ.

Anterior coxe transverse, separated, not prominent; middle and posterior ones transverse, flat, distant, the latter extending almost to the margin of the body.

Legs short, somewhat stout, retractile, or subretractile;

tarsi short, dilated (except in some genera of the third tribe), hairy beneath, usually 5 jointed, with the fourth joint very small; the posterior of the males of the sixth tribe 4-jointed, and in the foreign genus Cybocephalus all the tarsi 4 jointed.

The species of this family are usually oval, depressed, or slightly convex, but sometimes almost globular, sometimes elongate; they live on decomposing substances, both animal and vegetable. head is suddenly narrowed before the antennæ, forming a short beak; the antennæ are retractile, and their basal joints frequently pass into grooves under the eyes.

Six tribes compose this family, and are all represented in our fauna.

A. Antennæ with eleven distinct joints, club 3-articulate;

Labrum distinct; epistoma not prolonged;

Two or three dorsal segments of the abdomen exposed;

Maxillæ with two lobes. BRACHYPTERINI. Maxillæ with one lobe. CARPOPHILINI.

The last dorsal segment (pygidium) alone exposed;

Prothorax not covering the base of the elytra. NITIDULINI. Prothorax covering the base of the elytra. CYCHRAMINI.

Labrum concealed by the epistoma, which is prolonged.

B. Antennæ apparently 10-jointed, club solid. RHIZOPHAGINI.

#### Tribe I.—BRACHYPTERINI.

The species composing this tribe are few in number, found on flowers, and are more convex than those of the next tribe. sides the characters above specified, the anterior coxal cavities are not closed behind, the tarsi are 5-jointed in both sexes, and the prosternum is not prolonged behind the posterior coxæ. antennal grooves are seen below the eyes, and by this character the genera may be distinguished from all of those of the next tribe which occur in our fauna. The two genera are:-

Ungues simple. Ungues toothed at the base.

CERCUS. Brachypterus.

The males of the last genus have a small apical dorsal segment.

### Tribe II.—CARPOPHILINI.

The species of this tribe are usually flattened, though some of the species of Carpophilus are moderately convex. They are known (at least our genera) from those of the first tribe by the head having beneath the eyes two converging grooves for the reception

of the basal joints of the antennæ, and from those of the following tribe by two or three dorsal segments of the abdomen being visible behind the elytra; in Carpophilus and Conotelus the males have a small dorsal sixth segment. The ungues are simple. The species live some on flowers, some under bark.

Ventral segments 1-4 short, fifth as long as the others united. Colastus. Ventral segments 1-3 short, fourth and fifth long. TRIBRACHYS. Ventral segments 2-3 short, first, fourth, and fifth longer. Carpopullus. Ventral segments 1-2 short, 3-4 elongate, fifth elongate, conical.

The last genus has an elongate form, and resembles certain Staphylinidæ.

### Tribe III.—NITIDULINI.

Elliptical, usually depressed, and frequently widely margined species; sometimes moderately convex, and even (Pocadius) rounded. Distinguished from the previous tribes by the elytra covering the entire abdomen, or leaving only the pygidium exposed, and from the next by the thorax not being movable over the base of the elytra. All of our genera have antennal grooves on the under surface of the head.

These insects live on flowers (Meligethes), in fungi (Pocadius), under bark and stones (Epuræa), or on dried animal matter.

Our genera are as follows:-

- A. Prosternum not prolonged behind the anterior coxe, dilated, rounded, or truncate:
  - a. Antennal grooves converging behind, remote from the eyes;

Mentum not covering the base of the maxillæ;

Last joint of labial palpi large, thick; males with a small sixth dorsal segment.

Last joint of labial palpi not thicker than the preceding, males with no distinct sixth dorsal segment. NITIDULA.

Mentum covering the base of the maxillæ. Риметоріа.

b. Antennal grooves diverging behind, following the outline of the eyes; First joint of antennæ large, broadly dilated. LOBIOPA.

First joint of antennæ moderate;

Males without a sixth dorsal segment. OMOSITA.

Males with a sixth dorsal segment;

Middle and posterior tarsi not dilated. PHENOLIA. All the tarsi dilated. STELIDOTA.

B. Prosternum prolonged behind the anterior coxæ;

All the tarsi dilated. MELIGETHES.

Posterior tarsi not dilated (elytra deeply striate). PSILOPYGA. None of the tarsi dilated (elytra scarcely truncate). Pocadius. The genus Psilopyga is remarkable for its close resemblance, in appearance, to Hister.

## Tribe IV.—CYCHRAMINI.

The species of this tribe are rounded or oval, convex insects, living in fungi. One genus (Cyboeephalus Er.), not yet found with us, has the power of contracting into a ball, like Agathidium and Clambus, from which it will be distinguished by the anterior coxe not being prominent.

I. All the tarsi equal in length;

Tarsi all dilated; prosternum scarcely produced.

Cychramus.

Amphicrossus.

II. Hind tarsi elongated; prosternum but slightly produced. Pallodes.

#### Tribe V.-IPINI.

The species of this tribe are oblong, sometimes elongate species, usually prettily variegated with red spots on the elytra. They are readily known by the epistoma being prolonged between the mandibles; the elytra of Cryptarcha are rounded, of Ips and Pityophagus are truncate. The species live upon fungi and under bark.

Prosternal prolongation reaching the metasternum; first joint of antennæ covered by the front; body oval, pubescent.

CRYPTARCHA.

Prosternal prolongation not reaching the metasternum; body glabrous;

Head immersed in the thorax to the eyes; no sixth abdominal segment in the males; body oblong, rarely elongate.

IPS.

Head not immersed as far as the eyes; males with a sixth abdominal segment; body elongate, subcylindrical.

Pityophagus.

The species of the last genus entirely resemble in form those of the next tribe, but are distinguished by the antennal club, composed of three joints.

#### Tribe VI.-RHIZOPHAGINI.

Small cylindrical or slightly flattened species, having the club of the antennæ solid and composed of the tenth joint, the eleventh being closely connate with it; the labrum, as in the preceding tribe, is concealed by the prolonged epistoma; the elytra are truncate, leaving the pygidium exposed; the anterior coxal cavities are entirely closed, while in most of the genera of the preceding tribes they are open behind; the posterior tarsi are 4-jointed in

the males, 5-jointed in the females; the males have also a sixth dorsal segment. They are found under bark. One genus, Rhizophagus, constitutes the tribe, and is represented on both sides of the continent.

# FAM. XVI.—MONOTOMIDAE.

Mentum moderate, subquadrate, rounded or subangulated in front; ligula partly corneous, prominent; labial palpi

short, 3-jointed, first joint very small.

Maxillæ exposed at the base, with two lobes, the outer one long, slender, scarcely ciliate at tip, the inner one larger, ciliate internally and at the tip; maxillary palpi 4-jointed, the first joint very short.

Eyes strongly granulated, rounded.

Antennæ inserted under the sides of the front, behind the mandibles, 10-jointed, the last one or two joints forming a club.

Head tolerably large, flat, suddenly but slightly constricted behind; front broadly lobed between the mandibles, which are short, acute, and fringed with membrane internally; labrum very short, not distinct; mandibles short, robust, acute at tip, with a small subapical tooth; internal margin fringed with hair.

Prothorax with the side pieces not separate, prosternum entire, coxal cavities small, broadly closed behind.

Mesosternum short, emarginate behind; side pieces large, diagonally divided; epimera attaining the coxæ

Metasternum large, side pieces narrow.

Elytra truncate behind, leaving the last dorsal segment exposed.

Abdomen with five free ventral segments, the first and

fifth elongated.

Coxæ, anterior small, rounded, separated; middle rounded, separated by the sternum; posterior transverse, separated.

Legs moderate; tibiæ nearly linear, with distinct terminal spurs, and a few small spines about the tip; tarsi 5-jointed, the joints 1—3 slightly dilated, and covered beneath with long hair, the fourth narrower and smaller, the fifth longer than the others united, with simple ungues.

Small, depressed insects, found mostly under bark of trees. They resemble closely in characters and appearance the tribe

Rhizophagini of Nitidulidæ, and, like them, the males have a small terminal dorsal segment; the form of the anterior coxæ at once separates them from all Nitidulidæ.

The genera are:-

Antennæ with the ninth and tenth joints enlarged;

Ninth joint of the antennæ as wide as the tenth;

Sides of the head slightly dilated before the eyes; surface finely punctured and pubescent.

Phyconomus.

Sides of the head not dilated; body glabrous, coarsely punctured; elytra punctured in striæ.

Nomophlæus.

Ninth joint of the antennæ not as wide as the tenth; body coarsely punctured; elytra punctured and pubescent in striæ. Hesperobenus.

Antennæ with the ninth joint scarcely larger than the eighth;

Head short; body sparsely, coarsely punctured; elytra punctured and pubescent in striæ.

Bactridium.

Монотома.

Head long; body irregularly, densely punctured.

The type of Phyconomus is Monotoma marinum Lee.;\* it is found in California, under decaying kelp on the sea-shore.

Nomophleus is founded on *N. pallipennis* Lec., a small reddish-brown insect, 11 inch long, found in Pennsylvania. The elytra are pale, with the suture and tip dusky. The head and thorax are sparsely punctured; the latter is quadrate, searcely serrate on the sides, with a broad smooth dorsal vitta, limited behind by a curved impression.

Hesperobænus contains Monotoma runpenne Lec.† from California, and a nondescript from the Atlantic States. Rhizophagus capito Fairemaire, from Honolulu, also belongs to it.

Bactridium comprises Rhizophagus nanus Er. from the Atlantic States, and Monotoma striatum Lec.‡ from the Colorado Desert.

# FAM. XVII.—TROGOSITIDAE.

Mentum transverse, subquadrate; ligula small, corneous.

Maxillæ with two lobes, the inner one sometimes very small; palpi short, 4-jointed.

Eyes usually reniform (divided in some foreign genera). Antennæ inserted under the frontal margin, 11-jointed, rarely 10-jointed (in some foreign genera); the last three joints widened, forming a loose club, of varied form.

<sup>\*</sup> Proc. Acad. Nat. Sciences, Philad., 1858, p. 64. † Ibid., p. 64.

Prothorax not passing over the base of the elytra; side pieces not distinct; coxal cavities closed in the first and third sub-families, usually open behind in the second; prosternum separating the coxæ (except in Peltastica).

Mesosternum separating the coxe, side pieces extending

to the coxæ.

Metasternum emarginate behind, for junction with the first ventral segment; side pieces long, narrow; epimera not visible.

Elytra never truncate, always covering the abdomen.

Abdomen with five free ventral segments.

Anterior coxæ transverse, separated, and not prominent (except in Peltastica); middle and posterior ones transverse, flat (except in Peltastica), the former separated, the latter

rarely contiguous.

Legs moderate; tarsi 5-jointed, not dilated; joints 1—4 with a brush of hair beneath; first joint very short, second usually slightly elongated, last joint very long; claws simple, with a broad but short bisetose onychium.

The insects of this family were classed by Erichson with Nitidulide, but, as very properly observed by Lacordaire, although the characters are mostly the same as in that family, the different plan of structure in the maxillæ and tarsi is sufficient to mark them as a distinct family.

The species live under bark; but some Trogositæ are found in houses, living on grain, by the transportation of which they have been distributed over the entire globe.

Of the four recognized tribes of this family but two are found in our fauna; I consider them as indicating sub-families, and I have added a third for the anomalous genus Peltastica.

Anterior coxæ separate, not prominent;

Internal lobe of the maxillæ unarmed.

Internal lobe of the maxillæ armed with a corneous hook.

Peltidæ.

Anterior coxæ prominent, contiguous.

Peltasticidæ.

# Sub-Family I.—TROGOSITIDAE (genuini).

Elongate insects, having the thorax narrowed posteriorly, and somewhat distant from the elytra; the epistome is trisinuate or emarginate in front; the last three joints of the antennæ form a loose club, usually dentate internally; they are 11-jointed, except

in two foreign species of Nemosoma. The anterior coxe are entirely enclosed.

Eyes rounded.

NEMOSOMA.

Eyes transverse;

Ligula bilobed, tibiæ not spinous, anterior augles of thorax not prominent. TEMNOCHILA.

Ligula bilobed, tibiæ spinous.

ALINDRIA.

Ligula entire, tibiæ not spinous, anterior angles of thorax prominent.

Trogosita and Temnochila are represented on both sides of the continent; the other two genera only in the Atlantic district.

# Sub-Family II.—PELTIDAE.

Oval, flattened, or rounded convex insects, having always a flattened margin; the front is truncate; the last three joints of the antennæ form a loose perfoliate club. The anterior coxal cavities are open behind, except in Nosodes.

Mentum transverse, emarginate; antennal grooves feeble;

Anterior coxal cavities closed; tibiæ without terminal hooks. Nosodes. Anterior coxal cavities open; anterior tibiæ with a terminal hook.

Peltis.

Mentum minute, oval; antennal grooves deep;

Anterior coxal cavities widely open; tibiæ without terminal hooks.

THYMALUS.

The species of the first and second genera are flattened; the elytra are striate, with square punctures, in the first tuberculate, in the second with the sides of the body serrate; the third genus is convex, with the elytra irregularly punctured.

# Sub-Family III.—PELTASTICIDAE.

Peltastica tuberculata Mann., a small oval pale-brown insect found in Russian America, presents so many anomalies, that it is doubtful to what family it properly appertains. I have placed it in the present, as a sub-family in preference to establishing for it a separate family; which is, indeed, the only other course practicable, unless it be received as a sub-family of Silphidæ.

The form is oval, with depressed margins, like a miniature Pel-The body is coarsely punctured, and the elytra are marked with four rows of small black tubereles, separated by pale spots.

The maxillæ are not seen in my specimens. The antennæ are 11-jointed, with 3-jointed club; antennal grooves short; the front truncate, sides widely dilated.

The anterior coxæ are transverse, but prominent and contiguous; the coxal cavities are closed behind. The posterior coxæ are transverse, but prominent internally, and concave behind. The tibial spurs are obsolete. The joints 1—4 of the tarsi are very short and equal, hairy beneath; the last joint is very long, with moderate-sized simple claws. The fifth ventral segment is rounded behind, but the sixth projects slightly.

# FAM. XVIII.—COLYDIIDAE.

Mentum subquadrate, rarely covering the base of the maxillæ; ligula corneous; palpi 3-jointed, short.

Maxillæ with two lobes; palpi short, 4-jointed.

Antennæ inserted under the margin of the front, 10- or 11-jointed, rarely 8-jointed, sometimes gradually thickened, usually terminated by a small sudden club.

Prothorax with the side pieces not distinct; anterior coxal cavities almost always closed behind, sometimes distant, sometimes confluent; prosternum scarcely ever prolonged behind the coxe.

Mesosternum small, side pieces not attaining the coxe. Metasternum large; side pieces long, narrow; epimera not visible.

Elytra never truncate, always covering the abdomen.

Abdomen with five ventral segments, the three or four anterior ones more or less connate.

Anterior and middle coxe small, globular, not prominent; posterior transverse, either distant or contiguous, not prominent.

Legs short; tibiæ not dilated; terminal spurs usually small, frequently indistinct; tarsi 4-jointed, not dilated; ungues simple.

Small insects, usually of an elongate or cylindrical form, living under the bark of trees, in fungi, or in the earth. The small globular anterior and middle coxe, and the 4-jointed simple tarsi, will enable them to be readily distinguished from any of the neighboring families.

Five tribes, established by Erichson, and all represented in our fauna, constitute this family:-

I. Posterior coxæ contiguous :

Ventral segments equal in length. First ventral segment elongated.

SYNCHITINI. COLYDIINI.

II. Posterior coxæ distant;

Last joint of palpi not acicular; First ventral segment elongated. Ventral segments equal in length.

BOTHRIDERINI. Pycnomerini.

CERYLINI.

Last joint of palpi small, acicular.

## Tribe I.-SYNCHITINI.

Most of the species of this tribe are remarkable for being covered with asperities, usually bearing erect bristles; the form is sometimes elongate, but frequently oval, resembling Peltis. In our genera the first three tarsal joints are nearly equal, and the tibiæ have no terminal spurs, or only very small ones.

A. Tibiæ filiform, not spinous, without terminal spurs;

a. Antennæ not retractile under the head, 11-jointed (body elongate, costate);

Antennæ thick, perfoliate; eyes very narrow, remote from the margin of the head. Anchomma. Antennæ moderate; eyes round, lateral. RHAGODERA.

b. Antennæ received in grooves under the head;

Prosternum not produced behind; antennæ with 2-jointed club; antennal grooves short. COXELUS.

B. Tibiæ filiform, not spinous, with small terminal spurs;

a. Antennæ 11-jointed, with 2-jointed club;

Antennal grooves wanting; first and second joints of antennæ distinctly thicker; body costate. DITOMA.

b. Antennæ 10-jointed, club solid;

Antennal grooves wanting. Antennal grooves distinct, subparallel. SYNCHITA. Cicones.

C. Tibiæ slightly thickened, with small terminal spurs, and a few small spines at the extremity; antennæ 11-jointed, with 3-jointed club; (body costate) LASCONOTUS.

## Tribe II.—COLYDIINI.

Species having a cylindrical, sometimes very slender, form; found under bark. The European genus Aglenus has no eyes, but in all of ours the eyes are distinct. The elytra are striate, rarely ribbed. The first joint of the tarsi is elongate in all of our genera, except Oxylæmus, in which also the anterior coxal cavities are open behind.

A. Frontal margin broad, covering the insertion of the antennæ;

Club of antennæ 3-jointed; (thorax with impressed lines);

Anterior tibiæ with one spur enlarged, hooked; elytra finely or scarcely striate.

Anterior tibiæ with small spurs; elytra ribbed.

COLYDIUM. Club of antennæ 2-jointed; body costate. EULACHUS.

B. Frontal margin not dilated; base of antennæ exposed;

Anterior coxæ distant :

Eyes flat; spurs of the tibiæ small, outer angle prolonged; (elytra striate, body very elongate).

Anterior coxæ contiguous;

First joint of tarsi long; club of antennæ with two distinct joints; (elytra costate). PLEURIDIUM.

First joint of tarsi short; club of antennæ globular, composed of two connate joints; elytra coarsely punctured in rows.

OXYLEMUS.

#### Tribe III.—BOTHRIDERINI.

In this tribe the posterior coxe are widely separated, and the first ventral segment is elongated. The species are somewhat flattened, and the elytra are ribbed; the buccal cavity is deep, and the oral organs are retracted; the mentum is transverse and concave, and the inferior margin of the mandibles is dilated at the base; the eyes are not prominent; the antennæ are short, 11-jointed, with the club 2-jointed.

Two species of Bothrideres are known to me. The genus is distinguished by the anterior coxe being very widely separated.

#### Tribe IV.—PYCNOMERINI.

Elongate, somewhat flattened species, covered with coarse punctures, having on the elytra rows of very large punctures. The palpi are cylindrical, and the posterior coxe, as in the preceding tribe, are distant, but the ventral segments are equal in length.

Antennæ with eleven distinct joints, club 2-jointed. ENDECTUS. Antennæ with ten apparent joints, club solid. PYCNOMERUS.

Endectus contains Lyctus hamatodes Fabr. and L. reflexus Say, previously enrolled in Pycnomerus, and one nondescript; of the latter genus but one species is known to me. They are all from the Atlantic States.

#### Tribe V.—CERYLINI.

Small, oblong or oval, flattened insects, having all the coxæ widely separated, the first ventral segment elongated, and the last joint of the palpi small and acicular, the penultimate thick; lobes of the maxillæ long and slender.

Antennæ 11-jointed; (body pubescent). Antennæ 10-jointed; (body glabrous).

PHILOTHERMUS. CERYLON.

## FAM. XIX.—RHYSSODIDAE.

Mentum very large, quadrate, bisinuate in front, covering entirely the mouth beneath; palpi short, 3-jointed.

Maxillæ with two small lobes; palpi short, 4 jointed.

Antennæ inserted under the frontal margin, 11-jointed, joints nearly equal, rounded, the first larger, but also rounded.

Prothorax beneath with the side pieces distinct, the suture running parallel with the lateral margin; coxal cavities closed behind, widely separated.

Mesosternum very short, side pieces diagonally divided, epimera reaching the coxæ.

Metasternum very large; side pieces very narrow, almost concealed by the elytra.

Elytra rounded at tip, covering the abdomen, with six or seven deep furrows, or rows of punctures; scutellum wanting.

Abdomen with six ventral segments; the first visible only between the coxe, broadly triangular; the three anterior ones closely connate.

Anterior coxæ small, globular, not prominent; middle coxæ globular, small; posterior coxæ small, subtriangular,

prominent internally, all of them widely separated.

Legs short; anterior tibiæ somewhat dilated, terminated by two hooks, on the under surface sulcate towards the tip, subemarginate, and armed above the tip with a spine; middle and posterior tibiæ with an internal terminal spine, spurs distinct; tarsi 5-jointed, very slightly pubescent beneath; posterior trochanters prominent, oval.

Two genera, of singular form, found under bark, constitute this family, which in several of its characters resembles the Carabidæ, but yet not so as to belong to the same series. The antennæ are

composed of equal globular joints; the head is strongly constricted behind into a neck, and is sculptured with two deep grooves, converging behind; the thorax is long, has three entire grooves, and two short posterior broader ones (Clinidium), or three deep entire ones, and two finer lateral lines (Rhyssodes); the elytra are deeply grooved in Clinidium, coarsely striato-punctate in Rhyssodes.

Eyes lateral, rounded, distinctly granulated. Rhyssodes. Eyes superior, narrow, scarcely granulated (sometimes wanting?).

CLINIDIUM.

### FAM. XX.—CUCUJIDAE.

Mentum small, subquadrate, usually transverse; ligula corneous, prominent; palpi short, 3-jointed.

Maxillæ with two lobes; palpi 4-jointed.

Antennæ inserted at the margin of the front, 11-jointed, sometimes long and slender, sometimes with the outer joints

slightly enlarged, the first joint usually elongated.

Prothorax with the side pieces not separate from the upper piece; coxal cavities separated by the prosternum, widely open behind, with a fissure externally leading to the episternal suture in the second and third sub-families, entirely closed in the first, fourth, and fifth.

Mesosternum moderate; epimera reaching the coxæ.

Metasternum large, quadrate; episterna long, narrow, covered.

Elytra rounded at tip and covering the abdomen, except in the fourth sub-family; usually flat, strongly margined; scutellum distinct.

Abdomen with five free ventral segments, equal in length. Anterior coxe small, globular, not prominent; middle coxe small, subtriangular, not prominent; posterior coxe

nearly contiguous, transverse, slightly prominent.

Legs moderate; tibiæ slender, with two small terminal spurs; tarsi with the first joint usually small, sometimes 5-jointed in both sexes; the posterior tarsi sometimes 4-jointed in the males.

The species which constitute this family are, with one exception (Nartheeius), very depressed, and usually of an elongate form. They live under bark.

Monotoma, included in this family by Duval, should never have had a place in it.

This family divides into five sub-families, of which the second is considered by Du Val as forming a distinct family. The sole character, the concealment of the maxillæ by corneous plates, does not appear of sufficient importance to warrant such a conclusion, and I therefore follow the example of Erichson and Lacordaire in considering it as a member of the present family.

Anterior coxal cavities closed behind; tarsi not lobed beneath, with the fourth joint small. SILVANIDÆ.

Anterior coxal cavities open behind;

Fourth tarsal joint very small.

Maxillæ covered by corneous plates.

Maxillæ exposed.

Anterior coxal cavities closed behind; tarsi with the third joint lobed; Fourth tarsal joint not smaller than the third.

HEMIPEPLIDÆ.

Passandridæ.

CUCUJIDÆ.

TELEPHANIDÆ.

## Sub-Family I.—SYLVANIDAE.

In this sub-family are contained but two genera, having the genæ prominent and acute; the antennæ with the first joint not elongated, and the outer ones enlarged; the anterior coxal cavities are broadly closed behind, and the tarsi, 5-jointed in both sexes, have the fourth joint small.

The genera are two in number, and the species, which are of small size, are found under bark or in grain.

Antennæ with the joints 9-11 somewhat suddenly larger. Antennæ with outer joints gradually enlarged.

SYLVANUS. NAUSIBIUS.

The type and only species of the last genus is N. dentatus, having several large teeth on the sides of the thorax. It has been diffused over the whole globe in articles of commerce.

# Sub-Family II.—PASSANDRIDAE.

This sub-family is represented in the United States by a single species, Catogenus rufus, of very variable size, found in the Middle, Southern, and Western States. It is dark-brown, elongate, depressed; the elytra are striate, and the antennæ moderately thick; the tarsi are 5-jointed in both sexes; the anterior coxal cavities are open behind; the genæ are prolonged into plates covering the maxillæ.

## Sub-Family III.—CUCUJIDAE (genuini).

In this sub-family the anterior coxal cavities are open behind, and the base of the maxillæ is exposed. The tarsi are filiform, either 5-jointed, or with the hind ones of the males 4-jointed.

Two tribes are indicated by our genera:-

Antennæ with the first joint moderate. Antennæ with the first joint elongated.

CUCUJINI.
BRONTINI.

#### Tribe I.-CUCUJINI.

The typical genus Cucujus is represented in our country by two species. They are bright searlet-colored, depressed insects, less elongate than Catogenus, with the elytra punctured, with three faintly-marked smooth lines. C. clavipes is found on the Atlantic slope, C. puniceus in Oregon and Russian America. Nartheeius contains a small species from Pennsylvania, which is very remarkable for its cylindrical form and very large head, which, with the thorax, more than equals in length the elytra. The other genera are composed of small insects, occurring on both sides of the continent. The posterior tarsi are 4-jointed in the males.

Posterior angles of the head prominent, rounded; antennæ not thickened externally.

Cucuses.

Posterior angles of the head none: prosternum narrow: antennæ with the last three joints wider, the intermediate ones unequal; elytra not striate.

Pediacus.

Posterior angles of the head none: prosternum very wide; antennæ usually long, slender, the last three joints sometimes slightly dilated: elytra obsoletely striate; head and thorax with a fine elevated line or one or two striæ near each side; spurs of the anterior tibiæ unequal;

Body much depressed. Lemophlæus.

Body cylindrical; head very large (antennæ less elongated).

NARTHECIUS.

#### Tribe H .- BRONTINI.

This tribe consists of two genera, found on both sides of the continent, and also in Europe. Brontes is generally diffused, Dendrophagus only in the northern regions. The elytra are striate in both.

Body very elongate; sides of thorax parallel; mesosternum truncate in front.

Dendrophages.

Body less elongate; sides of thorax strongly serrate, anterior angles prolonged; mesosternum broadly emarginate in front.

Brontes.

## Sub-Family IV.—HEMIPEPLIDAE.

In this sub-family the anterior coxal cavities are nearly confluent, and narrowly closed behind; the clytra are rounded at tip, but shorter than the abdomen. The anterior and middle tarsi are somewhat dilated, and the fourth joint is not smaller than the third, and is slightly lobed beneath; the hind tarsi (of the males alone?) are 4-jointed. The body is very clongated, linear, and depressed; the head is narrowed behind the eyes, which are large. The thorax in our species is somewhat narrowed behind, with a large puncture each side, near the base; the antennæ are a little longer than the head and thorax, very slightly thickened at the extremity, with the first joint as long as the three following; the maxillæ are not covered, and the genæ are but slightly prominent.

Hemipeplus marginipennis, the only representative in our fauna, is a very rare insect, found under bark in the Southern States.

## Sub-Family V.—TELEPHANIDAE.

In this sub-family the anterior coxal cavities are broadly closed behind, as in the first sub-family, but the third joint of the tarsi is lobed beneath; the maxillæ are exposed, and the genæ but slightly prominent. The genus Telephanus is found under stones; of Pseudophanus the habits are not known.

Our two genera, each containing a single species, represent two tribes:—

Antennæ with the first joint elongated. Antennæ with the first joint short.

TELEPHANINI.
PSEUDOPHANINI.

Telephanus velox (Heterodromia velox Hald.) is found in the Atlantic district; Pseudophanus signatus Lec. in Oregon.

## FAM. XXI.—CRYPTOPHAGIDAE.

Mentum moderate, trapezoidal, sinuate in front; ligula corneous, usually with distinct paraglossæ; labial palpi short, 3-jointed.

Maxillæ exposed at the base, with two coriaceous lobes,

the inner one with a terminal hook; maxillary palpi 4-jointed, short.

Eyes rounded, moderately strongly granulated.

Antennæ 11-jointed, with the joints 9-11 larger, forming a club.

Head usually moderate in size, not narrowed behind, front sometimes moderately prolonged; labrum distinct, transverse.

Prothorax with the side pieces not separate; prosternum separating the coxæ, usually prolonged behind; coxal cavities open behind.

Mesosternum articulating with the prosternum, frequently

emarginate in front; side pieces not attaining the coxæ.

Metasternum large, side pieces narrow.

Elytra rounded behind, entirely covering the abdomen.

Abdomen with five free ventral segments, the first somewhat longer than the others.

Coxæ, anterior oval or rounded; middle ones rounded; posterior ones transverse; all of them separated by the re-

spective sterna.

Legs short; tibiæ nearly linear, with small terminal spurs; tarsi sometimes 5-jointed, with the fourth joint smaller; the hind ones are only 4-jointed in the males of several genera; the joints are clothed beneath with long hair, and the first three of the anterior pair are frequently dilated in the male.

Insects of small size and of variable form, but never very depressed, and with the thorax nearly or quite as wide as the elytra. They live on fungi and other decomposing vegetable matters. Some are found flying in the evening twilight, and upon boardpiles.

I have limited this family in the same manner as Lacordaire, and cannot adopt the views of Duval, who has joined with it Sylvanus, and excluded Telmatophilus. I do not find the anterior coxæ globose, as described by Erichson, Lacordaire, and Duval, except in Atomaria and the allied genus Epistemus.

The characters of the family are nearly those of Cucujidæ, but the greater length of the first ventral segment, and different form of body, enable the genera to be readily distinguished.

Three tribes are indicated as follows:—

Tarsi with fourth joint very small, the second and third lobed.

TELMATOPHILINI.

Tarsi with the joints not lobed beneath;
Antennæ inserted at the sides of the front.
Antennæ inserted at the anterior part of the front.

CRYPTOPHAGINI.
ATOMARIINI.

#### Tribe I.—TELMATOPHILINI.

The antennæ are inserted at the sides of the front, which is narrowed and prolonged; the clypeal suture is not visible; the anterior coxæ are slightly oval; the prosternum is prolonged, meeting the concave mesosternum. The tarsi are 5-jointed in both sexes, the fourth joint is very small, and the third is prolonged beneath into a lobe; the second joint is slightly lobed.

Telmatophilus, and a new genus, constitute this tribe; the species are found on plants near water. One species of each genus is known to me from the Atlantic district; they are found on plants near water. Loberus resembles, at first sight, a small Haltica of the group Crepidodera; the color is shining black, the thorax but sparsely punctured, with a transverse impression very near the base; the elytra have strize of fine punctures, from which proceed very short fine hairs.

The genera are thus distinguished:-

Ninth joint of antennæ scarcely wider than the eighth; body densely punctured and pubescent.

Telmatophilus.

Ninth joint of antennæ as wide as the tenth; body scarcely pubescent; elytra with striæ of punctures.

LOBERUS.

#### Tribe II.—CRYPTOPHAGINI (genuini).

The antennæ are inserted at the sides of the front, which is sometimes prolonged; the ninth joint of the antennæ is searcely narrower than the tenth. The anterior coxæ are decidedly transverse. The tarsi are sometimes 5-jointed in both sexes, but usually the hind tarsi of the male are 4-jointed; the joints are not lobed beneath, and the fourth is but little smaller than the third. The anterior tarsi of the males are slightly dilated, and hairy beneath.

Two groups are known by the following characters:— Mesosternum deeply emarginate, receiving the prosternum.

Mesosternum not emarginate.

Antherophagi. Cryptophagi.

#### Group I.-Antherophagi.

The genus Antherophagus alone, represented by one species in the Atlantic district, and one in Russian America, constitutes this group, which differs from the next not only by the prosternum being more prolonged, with the tip received into the deeply emarginate mesosternum, but by the very different form of the body, which is oval, and resembles considerably a Nitidulide of the genus Epurae. The head is flat, the front not prolonged, and in the male is deeply incised at tip, exposing a membranous triangular epistoma. The antennae of the female are clubbed, as usual; those of the male are stout, and scarcely thickened at the end. The mandibles are prominent, and suddenly incurved at the tip. The hind tarsi of the male are 4-jointed. The genus lives on flowers. Our species is finely punctured, and densely clothed with fulvous hair.

### Group II .- Cryptophagi.

Small insects, of an elongated form, living in decomposing vegetable matter; usually of a brown color, and clothed with rather coarse hair. The sides of the thorax are usually toothed. The prosternum is slightly prolonged, but the mesosternum is not emarginate for its reception. The antennæ and front are alike in both sexes, and the latter is somewhat prolonged.

The posterior tarsi of the male of Cryptophagus have but four joints; in Paramecosoma and Tomarus the tarsi are 5-jointed in both sexes.

Body pubescent; sides of the thorax toothed or serrate;

Mentum with an obtuse emarginate medial tooth.

Cryptophagus.
Paramecosoma.
Tomarus.

Mentum with an acute medial tooth.

Body glabrous; sides of the thorax smooth.

The two first-mentioned genera are represented in every portion of our territory; the third only in the Atlantic district, and resembles in appearance Atomaria, but differs from it by the insertion of the antennæ, and the absence of pubescence.

#### Tribe III.—ATOMARIINI.

The antennæ are inserted between the eyes, at the anterior part of the front, and are usually very closely approximated. The mentum is tridentate in front. The anterior coxæ are rounded. The tarsi are 5-jointed in both sexes, and not lobed beneath; the fourth joint is smaller than the third. The species are of very small size, and are found flying in the evening, and about woodpiles. The two groups of Atomaria recognized by previous

authors seem, from the form of the body and difference in position of the antennæ, almost entitled to rank as distinct genera.

Body pubescent; antennæ very approximate, or somewhat distant.

Atomaria.

Body ovate, convex, glabrous; antennæ somewhat distant. Epistemus.

## FAM. XXII.—DERODONTIDAE.

Mentum small, trapezoidal; ligula corneous, with distinct paraglossæ; labial palpi 3-jointed, with the last joint oval.

Maxillæ exposed at the base; inner lobe corneous, hooked at the end, and ciliate near the tip; outer lobe equal in size, ciliate at tip; maxillary palpi 4-jointed, cylindrical, last joint clargets ovel

elongate oval.

Head suddenly but not strongly constricted behind; eyes small, rounded, prominent, finely granulated; labrum transverse, rounded, separated from the front by a transverse membranous epistoma; mandibles short, curved, acute, with a tooth very near the apex.

Antennæ inserted before the eyes, upon the sides of the front, 11 jointed, first and second joints thicker than the fol-

lowing, 9-11 not suddenly larger.

Prothorax with the side pieces not separate, the margin strongly toothed; coxal cavities confluent, closed behind.

Mesosternum short, scarcely separating the middle coxæ;

side pieces diagonally divided.

Metasternum large, side pieces narrow.

Elytra entirely covering the abdomen, with ten rows of large quadrate punctures, besides a marginal series and a short one near the scutellum.

Abdomen with five free equal ventral segments.

Coxe, anterior, transverse, conical, prominent, contiguous; middle, oval, oblique, slightly prominent; posterior, transverse, slightly separated, dilated internally, forming a small plate, which protects the insertion of the thigh.

Legs moderate; tibiæ not dilated, with small terminal spurs; tarsi 5-jointed, clothed beneath with long hairs, the fourth joint somewhat smaller than the preceding; claws

simple.

This family contains only the genus Derodontus, represented by two species—Cryptophagus maculatus Mels., from the At-

lantic district, and Corticaria trisignata Mann., from Russian America.

The form of the anterior and posterior coxæ distinguishes it from all the preceding families, and approximates it somewhat to the families following the Elateridæ.

The two species are small, testaceous, or brown, coarsely punctured insects, having the head deeply impressed, with a small smooth tubercle each side inside of the eye, which at first sight resembles a large occllus. The thorax is comparatively small, channelled, and its lateral margin is strongly toothed; the elytra are wider than the thorax, with strice composed of large punctures, and are variegated with darker spots.

## FAM. XXIII.—LATHRIDIIDAE.

Mentum large, transverse; ligula indistinct; labial palpi short, with two or three joints; second joint large, rounded. Maxillæ with two lobes; palpi 4-jointed, last joint large.

Antennæ inserted in front of the eyes in our genera, 9—11-jointed, the first and second joints thicker than the third, the outer ones enlarged.

Front with clypeal suture distinct; labrum short, covering

the small, not prominent mandibles.

Prothorax with the side pieces not separate; prosternum more or less visible between the coxæ; coxal cavities entire; mesosternum separating the middle coxæ; metasternum moderate, side pieces narrow.

Elytra entirely covering the abdomen.

Abdomen with five free ventral segments, not remarkably

differing in length.

Anterior coxæ conical, prominent, more or less separated; middle ones separate, rounded; posterior coxæ transverse, widely separated.

Legs moderate; tibiæ slender, without terminal spurs; tarsi 3-jointed, the third joint equal in length to the other

two, with small simple claws.

Insects of very small size, found flying in twilight, and also under bark and stones; they are of graceful form, the elytra being usually wider than the thorax; the species of Bonvouloiria and most Lathridius are very remarkably sculptured, with elevated lines on the thorax.

The genus Monotoma, introduced into this family by many authors, does not belong to it, and will be found in the family Monotomidæ.

I have also excluded from the family Corticaria trisignata Mann., which, with Cryptophagus maculatus Mels.. must form a new genus, Derodontus; its systematic place is in a new family.

Our genera are related as follows:-

Antennæ with a distinct 2-jointed club; labial palpi 3-jointed.

HOLOPARAMECUS.

Antennæ with the outer joints enlarged; labial palpi 2-jointed;

Antennæ gradually thickened, last joints confused;\* thorax wide.

BONVOULOIRIA.

Antennæ 11-jointed; club 3-jointed; thorax narrower than the elytra;

Thorax strongly margined; second joint of tarsi not shorter than the first.

Lathribus.

Thorax not margined; second joint of tarsi shorter than the first.

CORTICARIA.

To Bonvouloiria belongs the Californian Lathridius parviceps Lec.† A species of Holoparamecus was found by me at Fort Yuma, California. The other two genera are represented on both sides of the continent.

## FAM. XXIV.—OTHNIIDAE.

Mentum trapezoidal, truncate in front; ligula corneous; palpi cylindrical, 3 jointed, third joint longer than the others.

Maxillæ exposed at the base (lobes not seen); palpi 4-

jointed, cylindrical, last joint longer than the others.

Antenne inserted under the sides of the front, before the eyes, 11-jointed, first joint thicker than the following, third longer than the first and second together, 9—11 broader, forming a loosely articulated club.

Head large and flat, sides of the front oblique in front of the eyes; labrum very short, closely articulated with the front, ciliate anteriorly; mandibles short, emarginate at tip; eyes large, prominent, finely granulated.

Prothorax quadrate, not wider than the head, feebly serrate on the sides, with the angles rounded; side pieces

† Proc. Acad. Nat. Sci., vii. 304.

<sup>\*</sup> Duval describes the antennæ of the European species as 9-jointed; those of the American species appear to have ten joints.

not distinct; coxal cavities small, rounded, confluent, closed behind.

Mesosternum short, narrow; side pieces divided by an almost longitudinal suture.

Metasternum moderate, side pieces narrow.

Elytra elongate, rounded at tip, leaving the tip of the abdomen uncovered; seutellum small, triangular.

Abdomen with five free ventral segments, slightly dimi-

nishing in length.

Coxæ, anterior small, conical, prominent, and contiguous; middle ones rounded, prominent, slightly separated by the mesosternum; hind ones transverse, not prominent, slightly separated, extending to the sides of the body.

Legs slender; tibia linear, with minute terminal spurs; tarsi slender, tolerably long, joints diminishing in length, anterior and middle 5-jointed, hind ones (of the male only?)

4-jointed; claws simple.

A small insect ('22 une. long), of elongate form and brownish-black color, with slight brassy tinge, coarsely punctured, and irregularly clothed with short whitish hairs, presents the above assemblage of characters, irreconcilable with any family known to me. The punctuation and character of pubescence resemble those of certain species of Dasytini from California; and the prominent anterior and middle coxe would seem to give weight to the affinity thus indicated. But the anterior coxal cavities are completely closed behind, and are much smaller than in any of the families of Serricorn Coleoptera allied to Dasytes. The simple structure of the claws, the 4-jointed hind tarsi, and the entire absence of a visible sixth ventral segment, besides many other characters, forbid the association with Dasytes. There is consequently no course left but to place it as a distinct family, in the neighborhood of Cryptophagidæ.

I found under decomposing Opuntia leaves, at San Diego, California, a second species of this genus, of rather broader form, with the elytra yellowish testaceous, variegated with small black spots. The specimen has been lost, and I am therefore unable to describe it more closely. If rediscovered, and recognized by the notes here given, it may be called Othnius guttulatus.

The species from which the description of the family is taken is found in Nebraska, near the Rocky Mountains. I have named it *Othnius umbrosus*. The flat head and large front give it

somewhat the outline of certain Monotomidæ, especially Phyconomus.

## FAM. XXV.—MYCETOPHAGIDAE.

Mentum transverse, trapezoidal; ligula usually corneous, without paraglossæ; labial palpi 3-jointed.

Maxillæ with two lobes, ciliate at the extremity; maxillary

palpi 4-jointed.

Eyes tolerably large, transverse or rounded, strongly granulated.

Antennæ inserted immediately in front of the eyes, 11jointed, the outer joints gradually or suddenly enlarged.

Head short; frontal suture distinct in the first sub-family, wanting in the second; labrum short, covering the mandibles,

which are short, acute, and not prominent.

Prothorax with the side pieces not separate, as wide as the elytra at the base; anterior coxal cavities open behind in the first sub-family, closed in the second.

Mesosternum narrowly separating the middle coxæ.

Metasternum moderate, side pieces narrow.

Elytra entirely covering the abdomen, rounded at tip. Abdomen with five free and equal ventral segments.

Coxæ, anterior oval, rounded, somewhat prominent; middle

rounded; posterior transverse, not contiguous.

Legs slender; tibiæ nearly linear, with small terminal spurs; tarsi filiform, 4-jointed in the first sub-family, in which the anterior ones of the male have but three joints; lobed beneath, and 5-jointed, with the fourth joint small, in the second sub-family; ungues simple.

The insects of this family live on fungi and under bark. They are oval, rarely elongate, slightly convex, densely punctured, and Many have the elytra handsomely variegated with spots.

Tarsi filiform, 4-jointed. Tarsi lobed beneath, 5-jointed. Мусеторнасида. DIPHYLLIDÆ.

# Sub-Family I.—MYCETOPHAGIDAE (genuini).

The species of this sub-family are finely punctured insects, clothed with prostrate hair. The anterior coxal cavities are open; the tarsi are 4-jointed and filiform, the anterior pair in the male having but three joints. The frontal suture is always distinct, and usually deep.

Our genera are:—

Eyes transverse;

Antennæ gradually enlarged externally. Mycetophagus.

Antennæ with joints 9--11 suddenly larger. Triphyllus.

Eyes rounded; antennæ with joints 9—11 suddenly larger;

Clypeal suture not deeply impressed.

Clypeal suture deep.

Eyes rounded; antennæ with joints 10—11 suddenly larger.

BERGINUS.

Mycetophagus and Litargus are generally diffused; Typhæa fumata has been imported by commerce, and is found in houses;  $Triphyllus\ ruficornis\ Mels.$  is found in the Atlantic district. Berginus occurs in Pennsylvania.

### Sub-Family II.—DIPHYLLIDAE.

This sub-family contains a very small number of species, agreeing in form with those of the preceding sub-family, but coarsely punctured, with less fine and less prostrate pubescence. The anterior coxal cavities are closed. The tarsi are 5-jointed, but the fourth joint is small, and the third prolonged beneath, forming a membranous lobe.

The genus Diphyllus has but the tenth and eleventh joints of the antennæ enlarged, and has not yet occurred in our fauna. Our genera have the club of the antennæ 3-jointed, and are known as follows:—

Thorax without elevated lines.

Thorax with two fine longitudinal lines near the sides.

Diplocelus.

The last joint of the antennæ is somewhat narrower than the tenth in Marginus, and is of the same breadth in Diplocœlus. They are each represented by one species in the Atlantic States. I found a species of either Diplocœlus or Diphyllus in Arizona, but the specimen has been lost.

## FAM. XXVI.—DERMESTIDAE.

Mentum quadrate, usually corneous; ligula simple; palpi short, 3-jointed.

Maxillæ with the base exposed, with two lobes of variable

form; palpi small, slender, 4-jointed.

Antenna inserted in front of the eyes, usually 11-jointed, variable in Anthrenus, 9-jointed in Dearthrus, and 10-jointed in certain foreign genera, with the last three joints forming a large club.

Head small, deflexed; epistoma very short, coriaceous; labrum distinct; mandibles short; eyes rounded, front usu-

ally with a single ocellus or simple lens.

Prothorax short, with the side pieces not separate, sometimes excavated beneath for the reception of the antennæ; coxal cavities large, transverse, closed behind by the mesosternum, except in Byturus; prosternum prolonged behind, except in Dermestes and Byturus, and usually lobed in front.

Mesosternum prominent, rounded or subacute in front in Dermestes, emarginate in the others; side pieces attaining

the coxæ.

Metasternum short, truncate in front; side pieces wide. Elytra covering the abdomen, not striate; epipleuræ obsolete behind.

Abdomen with five free ventral segments.

Anterior coxæ conical, prominent, with small trochantin; middle coxæ oval, oblique, excavated externally, with large trochantin, usually distant; posterior slightly separated, transverse, not extending to the margin of the body (except in Orphilus), dilated into a plate partly protecting the thighs, which is, however, almost obsolete in Byturus.

Legs short, somewhat contractile; tibia with distinct spurs; tarsi 5-jointed, joints 1—4 short, usually equal, fifth longer; claws simple in the second sub-family, toothed in Byturide.

This family comprises small oval insects, some of which are found on dried animal remains, others only on plants. Several of them are very destructive to furs and objects of natural history.

The genera indicate two sub-families:---

Tarsi with second and third joints lobed beneath. Tarsi simple.

BYTURIDÆ.
DERMESTIDÆ.

## Sub-Family I.—BYTURIDAE.

This sub-family consists of a single genus, Byturus, represented by one species from the Atlantic district and one from the Pacific. It departs remarkably from the next sub-family by the mandibles having several teeth, by the tarsi having the second and third

ORPHILL.

joints prolonged beneath into a membranous lobe, and the fourth joint small, and by the claws being armed with a large basal tooth; the plate of the hind coxe is very feebly developed. The species are found on flowers. They are small, oval, brown, pubescent insects. The prosternum is not lobed in front, and the coxal cavities are narrowly closed behind, and not completed, as in the next sub-family, by the mesosternum.

The position of this genus is much disputed. Erichson placed it in Melyridæ, with which it seems to have but small affinity; Duval places it in his family Telmatophilidæ, which is composed of heterogeneous elements, having no relation with each other; but by Redtenbacher and Lacordaire it is considered as belonging here, though the characters seem to me to warrant its being considered as a separate sub-family. The Chilian genus Diodontolobus has the ungues also armed with a tooth, but the description leaves it uncertain whether the place for it is in this or the next sub-family.

## Sub-Family II.—DERMESTIDAE (genuini).

The tarsi are not lobed beneath, the fourth joint is scarcely smaller than the third, and the ungues are simple. The anterior coxal cavities are widely open behind, and are completed by the mesosternum, which is usually protuberant. The prosternum generally is lobed in front.

Four groups are indicated:—

No frontal ocellus. Dermestes. Frontal ocellus distinct: Middle coxæ not very distant; prosternal fossæ obsolete. ATTAGENI. Middle cox:e widely separated; Mouth protected by sternum. Anthreni. Mouth protected by anterior legs.

#### Group I.—Dermestes.

The single genus Dermestes constitutes this group. It is represented in every part of our territory by several species. The head is without frontal ocellus; the prostermum is not lobed in front; the eavities for the reception of the antenne are large, and placed at the anterior portion of the sternum; it is not prolonged behind the coxe; the mesosternum is acute in front, and protuberant, so as to meet the prosternum; the hind coxæ do not attain the sides of the body. The species live on dried animal matter.

### Group II .- Attageni.

The frontal ocellus is distinct; the cavities for the reception of the antennæ are faint; the prosternum is prolonged behind, and its point enters the channelled mesosternum, which is protuberant in Attagenus megatoma, and declivous in the other species, but not very wide; the middle coxæ are consequently not very widely separated; the hind coxæ almost attain the sides of the body. The species live on dried animal matter.

Our species are two, and in neither is the prosternum lobed:—
Antennæ 11-jointed; first joint of tarsi short, second longer. Attagenus.
Antennæ 9-jointed; first joint of tarsi longer than second. Dearthrus.

Dearthrus is founded upon a small, elongate, finely pubescent insect from the Southern and Western States; the color is black; the legs are ferruginous. Of Attagenus two species, A. pellio and A. megatoma, have been introduced from Europe; two others are found in New Mexico.

## Group III.—Anthreni.

In this group the frontal ocellus is distinct; the prosternum is prolonged behind, and fits into the very short and sometimes divided mesosternum; the antennal cavities are very deep and distinctly limited in Anthrenus and Cryptorhopalum, shallow in Trogoderma, and badly defined in Apsectus; the middle coxæ are widely separated by the anterior part of the metasternum; the hind coxæ do not attain the sides of the body. The larvæ of most of the species feed on dried animal matter, the perfect insects are found in flowers.

Our genera are thus separated:—

Mesosternum emarginate or divided; prosternum pointed behind;
Mandibles and labrum not covered by the prosternum;
Antennal cavities extending along the margin; body pubescent.

TROGODERMA.

Mandibles covered, labrum not covered;

Antennal cavities extending along the margin; body pubescent.

CRYPTORHOPALUM.

Antennal cavities at the anterior angles; body clothed with scales.

ANTHERNUS.

Mesosternum entire; prosternum truncate behind; body clothed with long erect hairs.

Appendum.

The number of joints of the antennæ is variable in Anthrenns. Apsectus has but one species, found in the Atlantic States; one specimen in my possession was hatched from a tumor on a stem of *Rhus radicans*. The other genera are represented on both sides of the continent. The antennæ of the males of certain species of Trogoderma are strongly serrate.

#### Group IV .- Orphili.

This group consists of a single genus, Orphilus, of which one species is found in Europe, one in the Atlantic district, and one in California. The frontal occllus is distinct; the prosternum is very short, not lobed in front, pointed behind, but not reaching the mesosternum, which is horizontal, rounded in front, and separates widely the middle coxæ; the anterior coxæ are very large and prominent, and, with the anterior legs, serve to protect the under surface of the head; the antennal eavities are deep, but not very sharply defined, and are behind the middle of the thorax; the hind coxæ extend to the sides of the body; the ventral segments gradually diminish in length, and the last is quite short.

The Atlantic species, O. ater Er., is dull black, somewhat coarsely punctured; the Californian one, O. subnitidus Lee., is shining black, finely punctured, and is somewhat larger than O. ater. They are found on flowers.

## FAM. XXVII.—BYRRHIDAE.

Mentum transverse (except in Nosodendron), corneous; ligula usually prominent, simple.

Maxillæ exposed at base, with two unarmed lobes.

Antennæ rarely 10-, usually 11-jointed, the outer joints forming an elongate club in most genera, nearly filiform in

Amphieyrta.

Head prominent in Nosodendron, retracted in the other genera, with the parts of the mouth more or less protected by the prosternum; epistoma usually wanting, sometimes short, coriaceous, sometimes corneous; labrum distinct; mandibles short, not prominent.

Prothorax with the side pieces not separate; coxal cavities large, transverse, open behind, separated by the prosternum, which is short, truncate in front, slightly prolonged behind, fitting into the mesosternum.

Mesosternum small, prominent, emarginate, or excavated;

side pieces largely attaining the coxe.

Metasternum short, broad; side pieces narrow; epimera not visible.

Elytra covering the abdomen; epipleuræ obsolete behind. Abdomen with five ventral segments, the anterior three

subconnate in some genera.

Anterior coxæ transverse, not prominent, with large trochantin; middle coxæ flat, transverse, oval, with large trochantin; posterior coxæ subcontiguous, extending to the margin of the body, transverse, dilated into a plate partly protecting the hind thighs.

Legs short, stout, retractile; tibiæ dilated, usually sulcate externally for the reception of the tarsi; tibial spurs distinct; tarsi short, 5-jointed, the third joint frequently prolonged into a membranous lobe beneath, last joint nearly as long as

the others united; claws simple.

This family comprises three sub-families, as follows:—

Antennæ inserted at the side of the head;
Head prominent, mentum large.
Head retracted, mentum small.
Antennæ inserted on the front; head retracted.

Nosodendridæ.

Byrrhidæ.

Chelonaridæ.

# Sub-Family I.—NOSODENDRIDAE.

But a single genus, Nosodendron, constitutes this sub-family. It is represented in Europe by one species, and in the Atlantic States by another, N. unicolor Say. It is sufficiently distinguished by the large, clongate, semi-elliptical mentum, entirely closing the mouth below, leaving only a very narrow portion of the maxillæ to fill the fissure on each side; the head is advanced; the antennæ 11-jointed, situated under the side of the head; the labrum is indistinct; the tarsi not lobed.

The insect is less than one-fourth of an inch long, oval, convex, black, densely punctured, and is found under bark of trees.

## Sub-Family II.—BYRRHIDAE (genuini).

In this sub-family the head is retracted; the mentum small, quadrate; the base of the maxillæ largely exposed; the labrum distinct; the antennæ inserted under the sides of the head.

I would arrange these genera in three tribes:-

Epistoma short, coriaceous; antennæ 11-jointed.

Epistoma not distinct; antennæ clavate, 11-jointed.

Epistoma corneous, separated by a fine suture; antennæ 10-jointed.

Limnichini.

#### Tribe I.-AMPHICYRTINI.

These are distinguished by the front being finely margined, and broadly rounded anteriorly, leaving a short coriaceous epistoma, which serves as the base of the labrum. The labrum and mandibles are never concealed. The legs are scarcely contractile, and the antennæ are half the length of the body in Amphicyrta, a genus confined to the Pacific maritime slope. They are found under stones, and are very convex, ovate, smooth, black bronzed insects, very different in appearance from the other members of the family.

Antennæ nearly filiform; third tarsal joint lobed.

Amphicyrta.

Antennæ gradually but strongly clavate;

Tarsi not retractile.

Anterior tarsi retractile (third joint of tarsi usually lobed).

PEDILOPHORUS.

The tarsi of Amphicyrta are stated by Erichson to be not retractile; the posterior ones are in effect not retractile in A. chrysomelina, but very distinctly so in A. dentipes. Erichson has substituted the name Morychus for Pedilophorus, on the ground that the latter is not applicable to some of the species.

Simplocaria tesselata Lee. is found at Lake Superior; all the other species of the tribe belong to the Pacific slope.

#### Tribe II.-BYRRHINI (genuini).

Oval or rounded, very convex, dull black or bronzed insects, covered with a fine, easily removed pubescence, forming varied patterns.

The head is strongly retracted, and the antennæ are always

clavate; the labrum is distinct, and fits closely to the front, leaving no epistoma.

The species are found under stones; on the Pacific coast none have occurred south of Oregon.

Mandibles concealed by prosternum in repose, labrum visible;

Anterior tarsi retractile.
All the tarsi retractile.

CYTILUS.
BYRRHUS.

Mandibles, eyes, and labrum concealed in repose.

SYNCALYPTA.

The species of the last genus have on the upper surface long, elavate, upright bristles.

### Tribe III.-LIMNICHINI.

Very small species, found on the margin of watercourses, where they burrow in the ground, and emerge when the water is thrown on the banks. A faint clypeal suture divides the front, but, owing to the dense punctuation, is frequently scarcely visible; the labrum is distinct; the antennæ, inserted at the sides of the front, are only 10-jointed, and the three outer joints form a club, almost solid in Physemus, feebly defined in Limnichus. The head is strongly retracted in both genera; the tarsi are free.

Eyes, labrum, and mandibles concealed in repose.

Limnichus.

Eyes, labrum, and mandibles free; club of antennæ received in cavities at the anterior angles of the thorax, on the upper surface.

Physemus.

The second genus is represented by a very small species from the Colorado desert: the first by several species in the Atlantic States.

## Sub-Family III.—CHELONARIIDAE.

This sub-family is represented in our fauna by a single species of Chelonarium (C. Lecontei Dej. Cat.), as yet undescribed, and unknown to me. The tropical species are found on leaves of plants. They are elongate, oval, moderately convex insects, with the thorax strongly margined on the sides and front; the head retracted flatly upon the breast, leaving, however, the eyes, mandibles, and labrum visible; the antennæ are inserted upon the front, closely approximated, 11-jointed, filiform; epistoma not separate from the front. Legs very contractile; tarsi with the

third joint lobed; claws dilated at base. Epipleuræ very narrow, extending to the apex, grooved to fit the margin of the body.

It might perhaps be properly considered as a distinct family, but its affinities with the Byrrhidæ are none the less evident; though it is a transition form to the Helodidæ, below described.

## FAM. XXVIII,—GEORYSSIDAE.

Mentum quadrate, corneous, moderately large; ligula coriaceous, slightly bilobed.

Maxillæ with two unarmed lobes.

Antennæ inserted under the sides of the front, near the eyes, 9-jointed, the first and second joints thick, the last three forming an oval club.

Head deflexed; labrum distinct; mandibles small; eyes

rounded, lenses large.

Prothorax with the side pieces not distinct; prosternum membranous, not visible between the coxæ; flanks excavated for the reception of the antennæ.

Mesosternum short and wide, perpendicularly declivous in

front.

Metasternum moderately large, side pieces very narrow.

Llytra entire, descending widely on the flanks; epipleural fold narrow, extending to the apex.

Abdomen with five free ventral segments.

Anterior coxæ prominent, flattened at tip, forming two small, subquadrate, contiguous plates, with a deep fissure between them, in which is concealed the prosternum; middle coxæ oval, distant; posterior transverse, not contiguous.

Legs short, slender; tarsi filiform, 4 jointed, the first joint

longer than the following two; claws simple, small.

This family consists of but one genus, Georyssus; of it several species are found in Europe and Asia, and one in Kansas, G.

pusillus Lec.

They are small, rounded, convex, roughly sculptured, black insects, found at the margin of streams, on wet sand; they cover themselves with a mass of mud, so that no part of the insect is visible.

## FAM. XXIX.—PARNIDAE.

Mentum corneous, trapezoidal, or emarginate in front; ligula large, not lobed.

Maxillæ exposed at the base, with two unarmed lobes.

Antennæ variable in form and position.

Head usually retractile; labrum distinct; mandibles small;

eyes rounded.

Prothorax with the side pieces not separate; coxal cavities widely open behind, completed by the mesosternum, variable in form; prosternum prolonged behind the coxæ.

Mesosternum sometimes excavated, sometimes emarginate;

side pieces attaining the coxæ.

Metasternum with side pieces wide or narrow; epimera

(except in Psephenus) not visible.

Elytra entire; epipleuræ narrow, sometimes extending to the apex.

Abdomen with five, in Psephenus with seven ventral seg-

ments, the anterior ones connate.

Anterior coxe transverse, with large trochantin, or rounded, without trochantin; middle coxe oval, not contiguous; posterior coxe transverse, dilate l into a plate partly protecting the thighs, and contiguous in the first and second sub-families; distant and not forming a plate in Elmide.

Legs slender, usually long; tibiæ without distinct terminal spurs; tarsi 5 jointed, joints 1—4 short, equal, fifth longer than the others conjoined, large, with large simple claws.

A family containing three very distinct sub-families, and showing very diverse affinities not only with the preceding and following families, but also, by the form of the antennæ of various members, with the Gyrinidae, and with some families of the Serricorn series, especially the Helodidæ and Dascyllidæ; a more distant relationship with the Donacia tribe of the Chrysomelidæ, by the form of the tarsi of Hæmonia, has also been pointed out by Lacordaire.

Abdomen with seven ventral segments; anterior coxe with very large trochantin. Psephenide.

Abdomen with five ventral segments;

Anterior coxæ transverse, with distinct trochantin. Anterior coxæ rounded, without trochantin.

PARNIDAE.

### Sub-Family I.—PSEPHENIDAE.

The only member of this sub-family known is Psephenus Lecontei Hald., a flattened, blackish, finely pubescent insect, with testaceous legs, found in the Middle States, on bushes overhanging streams. It differs remarkably from the other members of the family; but the other two sub-families are also distinguished by so many characters, that I prefer regarding this also as a sub-family, to placing it as distinct.

The head is free, not retractile; the mouth inferior; the maxillary palpi very long, gradually dilated, the last joint securiform; the anterior part of the front is very prominent, and the upper face concave; the antenne are inserted at the sides of the front, distant, longer than the head and thorax, serrate; the eyes are large, convex, finely granulated. The anterior coxe are large and globular, the coxal cavities prolonged externally, showing a very large trochantin; the prosternum is carinate, and its posterior process is long and narrow; the mesosternum oblique, channelled; the side pieces of the metasternum are wide, and the epimera visible; the posterior coxæ dilated into a plate; the epipleuræ are narrow, and continue to the apex; the abdomen has seven ventral segments, the first and second connate, the fifth broadly emarginate, the sixth deeply bilobed, only visible around the emargination of the fifth, seventh rounded, entire, filling the emargination of the sixth. The body is clothed with the same fine pubescence that characterizes the other sub-families, enabling a film of air to be preserved beneath the water.

The larva is an elliptical object, with the margins widely extended beyond the body, and is seen on stones under the water of rapid streams; it is especially abundant in the rapids of Niagara, and differs in no important particular from the larva of Helichus, of the next sub-family. It respires by branchial filaments.

## Sub-Family II.—PARNIDAE (genuini).

The anterior coxe are transverse, with a distinct trochantin; the posterior coxe dilated into a plate; the abdomen has five ventral segments, the fifth rounded at the tip; the front is not prominent, as in Psephenide, and the oral organs are anterior;

the palpi are short. The other characters are still variable, and will furnish occasion for the division into tribes.

Head not entirely retractile; prosternum not lobed in front; antennæ serrate, with the first and second joints not enlarged.

LARINI.

Head retractile, protected by a prosternal lobe; antennæ short, first and second joints enlarged.

PARNINI.

#### Tribe I.—LARINI.

The only representative known to me is Lara avara Lee., from California, an elongate, blackish insect, finely pubescent, with the elytra punctured in rows, impressed behind the base, and the thorax strongly narrowed in front, somewhat uneven; the antennæ are distant from each other, and what remains of them indicates them to be serrate, and not irregular or short; the clypeal snurre is distinct; the head is not protected beneath by a lobe of the prosternum; the anterior coxæ are somewhat prominent, the trochantin large, free, and very distinct; the prosternal process is narrow; the mesosternum is prominent, deeply excavated; the middle coxæ are widely separated, and have distinct trochantin; the side pieces of the metathorax are narrow, the epimera slightly visible behind; the epipleuræ are narrow, and continue to the apex.

#### Tribe II.-PARNINI.

The head is capable of being retracted, and is then protected beneath by the prosternum, which is lobed in front; the antennæ are inserted on the front, distant and free at the margin of the eyes in Lutrochus, approximate and at the inner extremity of transverse grooves, and remote from the eyes, in the other two genera; they are short, 11-jointed, and more or less irregular in form. The anterior coxe are not prominent, the trochantin small, connate with sternum; the prosternal process is wide; the mesosternum broad, emarginate, the middle coxe with trochantin; the side pieces of the metathorax wide, with the epimera not visible, except in Lutrochus, where they are narrow, with small epimera. The epiplenræ are narrow, and variable in form; they are suddenly lobed in front, and extend to the apex in Lutrochus; they are not suddenly lobed, but extend to the apex, in Pelonomus; while in Helichus they are not lobed, and extend much less distinctly to the apex.

Body rounded; antennæ distant, club slender.

LUTROCHUS.

Body oblong, elongate;

Antennæ approximate, second joint moderate, club pectinate.

PELONOMUS.

Antennæ distant, second joint much dilated, club lamellate. Helichus.

Lutrochus luteus is found in Texas; Pelonomus obscurus in the Sonthern and Western States; Helichus is widely distributed, and is found clinging to stones under water, in rapid streams; the other two genera are found at the margin of streams, under stones, &c.

## Sub-Family III.—ELMIDAE.

The anterior coxe are rounded, without trochantin; the abdomen has five ventral segments, the fifth rounded at tip; the front is not prominent; the palpi are short; the antennæ inserted upon the front, near the eyes, slender, slightly thickened externally; middle coxæ widely distant; posterior coxæ separated, transverse, not dilated into a plate protecting the thighs; legs exceedingly long; side pieces of the metathorax narrow, epimera not visible; epipleuræ narrow, extending to the apex.

These insects are only found adhering to stones or plants beneath the surface of the water; the larvæ are similar in form to those of the other sub-families, except that the segments are not united to the margin, which thus appears incised.

Head protected beneath by a lobe of the prosternum;

Antennæ 11-jointed;

Anterior tibiæ pubescent internally. Anterior tibiæ glabrous internally.

Limnius. Stenelmis.

Antennæ 6-jointed. Macronychus. Head free; prosternum not lobed beneath; antennæ 11-jointed.

Ancyronyx.

No species of this sub-family has occurred in our fauna, except in the Atlantic district.

# FAM. XXX.—HETEROCERIDAE.

Mentum large, oblong, deeply emarginate in front; ligula coriaceous, prominent, bilobed, without paraglossæ; palpi 3-jointed, moderately long.

Maxillæ exposed at the base, which is elongated; lobes two, coriaceous, not armed, but sparsely ciliate; palpi 4-jointed, short.

Antennæ inserted at the internal margin of the eyes, but in front, short, 11-jointed, joints 5—11 forming an oblong serrate club.

Head large; eyes rounded, finely granulated; front prominent; labrum large, rounded, ciliate over its whole surface; mandibles stout, prominent, fringed internally with a ciliate membrane, and furnished externally with a strong carina.

Prothorax transverse, with rounded angles, side pieces not separate; prosternum lobed in front, acute behind; anterior coxal cavities widely open behind.

Mesosternum very short, deeply emarginate; side pieces

small, diagonally divided.

Metasternum moderate, meeting the first ventral segment; side pieces wide.

Elytra entirely covering the abdomen.

Abdomen composed of five nearly equal ventral segments, the fifth only being movable, the others connate; the first marked each side with an elevated curved line reaching the posterior margin.\*

Coxe, anterior oval, transverse, with a distinct trochantin; middle ones rounded, angulated externally, separated by the anterior part of the metasternum; hind ones transverse,

nearly contiguous.

Legs stout; tibiæ dilated, armed with rows of spines, and fitted for digging; tarsi 4-jointed, second and third joints shorter than the others, not lobed beneath, but fringed with long hairs; claws simple.

This family consists of but a single genus, Heterocerus; it is represented in every portion of our territory. The species are numerous, but are very similar in form and color, so that care is necessary in distinguishing them. They are oblong or subclongate, oval, densely clothed with short silky pubescence, very finely punctuate, and of a brown color, with the elytra usually variegated with undulated bands or spots of a yellow color. They live in galleries which they excavate in sand or mud at the margin of bodies of water, and, when disturbed, run from their galleries and take flight, after the manner of certain species of Bembidium.

<sup>\*</sup> This elevated line is finely striate transversely, and is a stridulating organ; the hind legs, by friction against it, produce a quite distinct sound.

# FAM. XXXI.—LUCANIDAE.

Mentum large, corneous, quadrate, rarely (Passalus) deeply emarginate; ligula usually placed behind the mentum.

Maxillæ usually covered, with two lobes, the inner one usually, the outer one sometimes, with a fixed corneous terminal hook.

Mandibles frequently very large.

Labrum frequently connate with the epistoma; clypeal

suture wanting.

Antennæ inserted under the margin of the front, before the eyes, usually geniculate, 10-jointed; the first joint very long in the first tribe, moderate in the second; the outer ones prolonged internally, forming a pectinate club, the joints of which cannot be brought closely together.

Prothorax with the side pieces not separate; coxal cavities separated by the prosternum, transverse, closed behind.

Mesosternum short, separating the coxæ; side pieces large,

diagonally divided; epimera attaining the coxe.

Metasternum large, closely connate with the mesosternum in front, receiving the apex of the first ventral segment in a minute emargination behind; side pieces narrow; epimera nearly concealed by the elytra.

Elytra rounded at tip, covering the abdomen.

Abdomen with five free ventral segments; the sixth (internal) slightly prominent in Platycerus; spiracles situated in the membrane between ventral and dorsal segments, but different in position in the two tribes; in Lucanini they are at the bottom of the lateral concavity of the dorsal surface of the abdomen; in Passalini they are situated on the crest

of the margin.

Legs fossorial; anterior coxe large, transverse, not prominent, without trochantins; middle coxe usually transverse, sometimes nearly rounded; posterior coxe transverse, flat; trochanters not prominent internally; anterior tibiæ more or less toothed externally, frequently palmate, with one terminal spur; middle and posterior tibiæ with two external teeth, terminal dilatation, and two spurs; tarsi slender, 5-jointed, last joint long; claws simple, with a short intermediate onychium bearing two bristles.

The insects of this family live on the juices of decomposing wood, and are very closely allied to the Scarabæidæ; the prin-

cipal distinguishing character is that the outer joints of the antenne, though somewhat lamellate, cannot be placed closely so as to form a compact club. In the position of the abdominal spiracles the tribe Lucanini resembles the first sub-family of the Scarabæidæ, in which alone occur tribes with the pygidium entirely covered by the elytra, as in the present family. In fact, for a distinguishing character from some of the tribes, reliance must be had on the large size of the mentum, and the form of the antennal club.

They form two tribes, distinguished by the form of the mentum and position of the ligula. Those portions of the body in the second tribe recall strikingly the form already seen in the Carabidæ, with which, however, the insects have no other resemblance.

Mentum entire, ligula behind or at the apex of the mentum. Lucanini. Mentum deeply emarginate, ligula filling the emargination. Passalini.

#### Tribe I.-LUCANINI.

Ligula membranous or coriaccous, usually behind the mentum, which is entire; mandibles without a basal molar tooth, usually elongated in the males; external lobe of the maxillæ unarmed, penicillate; labrum connate in the first sub-tribe, free in the other two; scutellum between the elytra; middle coxæ somewhat transverse.

The species are usually large oblong insects, glabrous above, sometimes cylindrical.

Sub-tribes, all having the thorax not closely applied to the elytra, are represented in our fauna as follows:—

Ligula and maxillæ covered by the mentum;

Anterior coxe approximate; antennæ geniculate.
Anterior coxæ contiguous; antennæ straight.
Ligula and maxillæ not covered; antennæ straight.

LUCANINI.
CERUCHINI.
SINODENDRINI.

## Sub-Tribe 1.—Lucanini (genuini).

The typical genus is represented by three large species from the Atlantic States, one of which (*L. elaphus*), by the very long mandibles of the male, resembles the stag-beetle of Europe, and one from New Mexico. Of Dorcus two species are found in the Atlantic States; of Platycerus we have two eastern species, and two from California and Oregon. The genera are thus distinguished:—

Eyes strongly emarginated by the margin of the head; Labrum subtriangular, rounded in front. Labrum very short, broad, truncate, or emarginate. Eyes almost entire; sixth ventral segment visible.

Lucanus.
Dorcus.
Platycerus.

### Sub-Tribe 2.—Ceruchini.

One genus is represented in our fauna, Ceruchus, of cylindrical form, with the head and mandibles of the male enlarged. There are two species, *C. piccus* from the Atlantie, *C. striatus* from Oregon.

### Sub-Tribe 3.—Sinodendrini.

This sub-tribe consists of but a single genus, Sinodendron, of cylindrical form; the male has the head armed with a long horn, and the anterior part of the thorax suddenly declivous; the mandibles are short in both sexes; the eyes are not emarginate; the maxillæ and ligula are not concealed by the mentum.

S. rugosum Mannh. inhabits California and Oregon. A species, S. americanum, is described by Beauvois, from Atlantic America, but is unknown to me.

#### Tribe II.-PASSALINI.

Ligula large, corneous, filling a quadrate emargination of the mentum; antennæ straight, first joint of moderate length; mandibles with a basal molar tooth, and an anterior movable one; maxillæ with both lobes hooked; labrum movable; scutellum in front of the base of the elytra; middle coxæ nearly globular.

This tribe contains but a single genus, of which many species exist in the warmer parts of the earth; it is represented in our fauna by but one, *Passalus cornutus*, an elongate, somewhat flattened, shining beetle, of large size, having the head armed with a short bent hook, and the elytra deeply striate. It is quite frequently seen in old stumps of trees.

## FAM. XXXII.—SCARABÆIDAE

Parts of the mouth variable in form.

Antennæ inserted under the sides of the front, before the eyes, 7- to 11-jointed, usually 10-jointed, the external joints, usually three in number (sometimes as many as seven), pro-

longed internally, forming a club of lamellæ, which may be brought close together; first joint always elongated, second thicker than the following.

Prothorax with the side pieces not separate; anterior coxal

cavities transverse, very large, closed behind.

Mesosternum short, frequently very narrow; side pieces attaining the coxe, except in Trogini.

Metasternum large; side pieces variable in form. Abdomen with six, rarely five, ventral segments.

Legs fossorial; anterior coxe large, transverse, sometimes subconical and prominent, sometimes not prominent; middle coxe large, transverse, not prominent; posterior coxe flat, transverse; anterior tibiæ palmate, toothed, with a single terminal spur; middle and posterior tibiæ variable in form, with two spurs, except in Coprini, where there is but a single one; tarsi 5-jointed, the anterior ones sometimes wanting; claws generally equal, rarely wanting, usually with an intermediate bisetose onychium.

A very large and distinctly limited family of insects, the members of which exhibit great variations in the form and arrangement of the various organs of the body, while preserving a characteristic appearance, and, conjoined with it, the lamellate antennal club and the fossorial legs.

For reasons mentioned in the prefatory remarks to my synopsis of the Melolonthidæ of the United States,\* I prefer dividing the family into three sub-families, according to the position of the abdominal spiracles. Erichson and Lacordaire establish but two sub-families, while Burmeister arranges the genera in a totally different manner.

- I. Abdominal spiracles situated in the membrane connecting the dorsal and ventral corneous plates, the last one covered by the elytra. Ligula always separate from the mentum; (larvæ with the lobes of the maxillæ separate).

  LAPAROSTICTI.
- II. Abdominal spiracles in part situated on the superior portions of the ventral segments, the last one usually visible behind the elytra; the rows of spiracles feebly diverging. Ligula sometimes free, usually connate with the mentum.

  Melolonthide.
- III. Abdominal spiracles (except the anterior ones) situated in the dorsal portion of the ventral segments, forming rows which diverge strongly; last spiracle usually visible behind the elytra. Ligula always connate with the mentum; (larvæ with the lobes of the maxillæ connate).

PLEUROSTICTI.

<sup>\*</sup> Journ. Acad. Nat. Sci., 2d ser., iii. 225.

## Sub-Family I.—SCARABÆIDAE LAPAROSTICTI.

Besides the characters given by the position of the abdominal spiracles in the membrane connecting the ventral and dorsal segments, and the ligula separate from the mentum, these insects, or at least a portion of them, exhibit characters not found in the other families.

In many of them the upper surface of the head is much dilated on the front and sides (but never reflexed, as in most Melolonthidæ); the clypeal suture is distinct, and ascends towards the vertex, forming an angle; the mandibles are usually thin plates, frequently membranous, small, and invisible, except on dissection; sometimes, however (Geotrupes, &c.), they are well developed. In some of the genera the antennæ are 11-jointed. The club of the antennæ consists of but three joints, except in Pleocoma, and in some the first joint of the club is hollowed out so as to receive the second or even the last joint. The tarsi are armed with simple claws in all of our genera, except Phanæus, where the claws are wanting; in some genera of Coprini the anterior tarsi are wanting. The usual bisetose onychium is wanting in Acanthocerini, Trogini, Aphodiini, and some Coprini.

The arrangement of this sub-family is adopted nearly as in Lacordaire's work, with the exception of the removal of the tribe Glaphyrini to the next sub-family, and the establishment of two new tribes.

The species all live on decomposing animal matter, and most of them in excrements.

The tribes are as follows:-

Abdomen with six visible ventral segments;

Antennæ 9- or 10-jointed (club always 3-jointed);

Posterior tibiæ with a single spur.

Posterior tibiæ with two spurs;

Antennæ 10-jointed.

Side pieces of metathorax simple;

Antennæ 9-jointed.

Epimera of metathorax visible.

Antennæ 11-jointed;

Club 3-jointed, mandibles and labrum prominent.

Club many-leaved, mandibles and labrum small.

Abdomen with five visible ventral segments;

Epimera of mesothorax attaining the oblique coxæ;

COPRINI.

0 0 1 1111111

Арпоримі.

Orphnini.

Hybosorini. Geotrupini.

PLEOCOMINI.

Body contractile, legs broad.

Body not contractile, legs normal.

Epimera of mesothorax not attaining the rounded coxe.

Acanthocerini.

Nicagini.

Trogini.

#### Tribe I.—COPRINI.

These insects are of rounded form, and live almost exclusively in excrements. The clypeus is expanded so as to cover entirely the oral organs; the lobes of the maxilhe are large, ciliated, and of a membranous or coriaceous structure; mandibles lamelliform, principally membranous, with only the outer margin corneous; the mentum is emarginate; antennæ 8- or 9-jointed, club 3-jointed; epimera of metathorax covered; mesosternum very short; middle coxæ oblique, widely separated; posterior tibiæ with a single terminal spur; tarsi usually without the bisetose onychium; elytra subtruncate, leaving the pygidium exposed; ventral segments six, all connate.

It is in this tribe alone that species occur in which the anterior tarsi are wanting in the females, or in both sexes; the claws of the tarsi are also sometimes wanting. Organs of stridulation are found on the dorsal surface of the abdomen of certain species.

According to the form of the posterior tibiæ, two sub-tribes are indicated:—

Middle and posterior tibic slender, scarcely enlarged.

Ateuchini.

Middle and posterior tibic dilated at the extremity.

Coprini.

#### Sub-Tribe 1.--Ateuchini.

These species deposit their eggs in balls which they construct of the materials on which they live, and roll these balls to a considerable distance, a labor for which their long, slender, and slightly curved posterior tibiæ fit them. The head and thorax never bear horns, and the sexes are alike in appearance, except in *Deltachilum gibbosum*, where the elytra of the male are each armed with a large dorsal tubercle. The anterior coxæ are slightly prominent internally. The onychium between the claws is wanting.

Our genera are but two in number, and each represents a separate group of this sub-tribe; the groups of genuine Ateuchi and Minthophili not occurring in our fauna.

Epipleura of the elytra narrow, or wanting; anterior tarsi distinct. Group I. GYMNOPLEURI. Epipleuræ distinct, narrow; scutellum none.

CANTHON.

Epipleuræ of the elytra wide; anterior tarsi wanting.

Group II. DELTOCHILA.

Anterior tibiæ not prolonged at the extremity.

DELTOCHILUM.

#### Sub-Tribe 2.—Coprimi (genuini).

The gradually thickened middle and hind tibiæ unfit these insects for transporting the balls of material which serve for the food of the larvæ; though some of the species do construct balls, they bury them in the place where they are formed. The sexual differences are frequently strongly marked, the male having horns on the head or thorax. The epipleuræ are always narrow, and the first joint of the tarsi is elongated. The anterior tarsi are wanting in some species of Phanæus, and the claws are all wanting in the same genus.

The following groups are represented in our fauna:—

Third joint of labial palpi distinct;

Anterior coxæ very transverse, not prominent.

Anterior coxe short, prominent;

Labial palpi dilated.

Labial palpi subfiliform.

Third joint of labial palpi obsolete.

SCATONOMI.

Copres.

ONTHOPHAGI.

#### Group I.-Scatonomi.

Our only representative of this group is Chæridium capistratum, a moderately small, convex, shining, bronzed black insect, resembling a Histeride, with finely striate elytra, found in dung. The 3-jointed labial palpi, and the transverse, not prominent, anterior coxe, readily distinguish it from the other groups. The claws are small, without onychium, but the tip of the last joint of the tarsi is prolonged beneath into an obtuse process one-half as long as the claws.

#### Group II.—Copres.

The labial palpi are 3-jointed, broad, and compressed; the anterior coxe are conical, large, and prominent. The last joint of the tarsi has no onychium, and in one genus the claws are wanting; in Copris the claws are small, and the inferior portion of the joint is prolonged into a process as long as the claws. The anterior tarsi are wanting in certain foreign Phanæus; and in one genus, Dendropæmon, from Brazil, the tarsi have only two joints.

Our genera are but two; neither is represented on the Pacific coast.

First joint of antennal club not receiving the others; metasternum rectangular; claws distinct.

Copris.

First joint of antennal club hollowed, receiving the others; metasternum rhomboidal; claws wanting.

Phanæus.

In both of these genera sexual characters are usually obvious in tubercles and horns on the head and thorax. The species of Phanæus are brilliantly colored, and P. carnifex, with its rough copper-colored thorax and green elytra, is familiar to every collector.

#### Group III.—Onites.

Onitis Nicanor Fabr., a very rare insect of the Southern States, alone represents this group in our fauna.

The anterior coxe are large, conical, and prominent; the labial palpi are 3-jointed, and nearly filiform; the claws are distinct, the onychium small, and the inferior part of the last joint of the tarsi is not prolonged.

The genus Onitis is distinguished by the scutellum being small, but distinct; it resembles in form a large Onthophagus.

## Group IV.—Onthophagi.

Several small species of Onthophagus from the Atlantic slope represent this group.

The anterior coxe are large, conical, and protuberant; the labial palpi are but 2-jointed, the third joint being obsolete; the tarsal claws are distinct, and the onychium is long, with the two usual setæ.

In some of the species the head or thorax of the males is armed with horns.

The genus is known by the antennæ having but nine joints, and by the scutellum not being visible.

#### Tribe II.—APPRODUNI.

Species of small size, and oblong, convex, or cylindrical form, living chiefly in excrements. The clypeus, as in Coprini, is dilated so as to cover the oral organs, but in one genus, Ægialia, they are visible beyond the apex of the clypeus; the maxillæ and mandibles are variable in form; antennæ 9-jointed, club 3-jointed; epimera

of metathorax covered; middle coxæ oblique, contignous in our genera; posterior tibiæ with two spurs; elytra covering the pygidlinm entirely or in part; ventral segments six, all free; tarsi with distinct claws and small bisetose onychium.

The sexual differences are usually none; in a few species the head, and more rarely the thorax, of the male are marked with one or more small tubercles. Our genera are as follows:—

#### Mandibles and labrum concealed;

Lobes of the maxillæ membranous or coriaceous, unarmed;

Upper part of the eyes visible in repose. Approbles.

Upper part of the eyes invisible in repose;

Posterior tibiæ prolonged externally into a spine.

External lobe of the maxillæ corneous, hooked.

Mandibles and labrum visible beyond the clypeus.

EGIALIA.

Euparia embraces many species, of which Eu. castanea inhabits ants' nests in the Southern States. Psammodius is recognized by the transverse grooves of the thorax, and Ægialia by the thick convex body; the species of the last-named genus are found near the ocean or large lakes.

Several species of Aphodius have been introduced from Europe, but are now entirely naturalized, especially in the northern parts of the country; e. g. A. fossor, fimetarius.

#### Tribe III.—ORPHNINI.

Oval, convex species, of brown color, covered above with short erect hair; the elytra are striate; the mandibles and labrum are corneous, not covered by the clypeus, which is not dilated as in the two preceding tribes; antennæ 10-jointed, elub 3-jointed, somewhat rounded; anterior coxæ prominent; middle coxæ oblique, contiguous; epimera of the metathorax covered; ventral segments six, not connate; tarsi with a small setigerous onychium.

The species in our fauna are three, belonging to Ochodæus. They are found from the Mississippi westward to Arizona, and are very rare. Ochodæus is distinguished from the other genera of the tribe by the eyes being not emarginate. The habits are unknown.

#### Tribe IV.-HVROSORINI.

A single species of Hybosorus found in the Southern States, identical with the European *II. arator*, and probably imported,

alone represents this tribe in our fauna. It is an oval, convex, shining black insect, about a quarter of an inch long, with fine rows of punctures on the elytra.

The mandibles and labrum are corneous, prominent; antennæ 10-jointed, the club 3-jointed, the first joint hollowed and receiving the second; anterior coxæ conical, prominent; middle coxæ oblique, contiguous; epimera of the metathorax visible; ventral segments six, all but the last connate. Tarsi with a short bisetose onychium.

#### Tribe V.-GEOTRUPINI.

Insects of rounded convex form, some living in excrements, others found wandering about without visible means of support; the elytra strongly striate in nearly all; the thorax of the males, and more rarely the head, armed with horns or tubercles.

The mandibles and labrum corneous, prominent; antennæ 11-jointed, club 3-jointed, variable in form; anterior coxæ prominent; middle coxæ more or less oblique, usually contiguous, but separated in Athyreus; epimera of the metathorax visible; ventral segments six, free; the elytra covering the pygidium; tarsi with a bisetose onychium.

With the exception of one species of Odontæus from California, our species are all found east of the Rocky Mountains.

Club of antennæ large, lenticular;

Middle coxæ separated.

Middle coxæ contiguous;

Eyes partially divided. Eyes entirely divided.

Club of antennæ lamellate.

d. Bolbocerus.
Odontæus.

ATHYREUS.

GEOTRUPES.

## Tribe VI.--PLEOCOMINI.

This tribe contains but a single Californian species, *Pleocoma* fimbriata Lec., of moderately large size, black, rounded, not very convex, with the body, parts of the mouth, and legs clothed with very long hair. The elytra are irregularly punctured, and the head is armed with a perpendicular horn between the eyes, and the front is prolonged and bifurcated; above the insertion of the antennæ is an acute lobe. The antennæ have eleven joints, of which the last five or six form a large lamellated mass; the labrum is elongated, rounded at the apex, and deflexed. The mandibles

are pyramidal and short; the inner lobe of the maxillæ is very small, and hooked at the tip; the outer one is larger, but still small, rounded at tip, and hairy; the maxillary palpi are long and slender, the second joint equal to the third and fourth, the third being only half as long as the fourth. The mentum is nearly semicircular; the ligula is entirely concealed by the base of the labial palpi, which are moderate in length, the third joint being as long as the first and second together. coxe are large, conical, prominent; the middle ones contiguous. prominent, conical, oblique; the clytra cover the pygidium almost The anterior tibiæ are 3-toothed, and have two small teeth above the upper tooth; the middle and hind tibiæ are expanded at tip, and have two acute teeth placed transversely about the middle on the external surface. The tarsi are longer than the tibiæ, and slender, the joints 1-4 equal, the fifth longer than the two preceding; the claws slender, with a narrow bisetose onychium. Ventral segments free, the sixth retracted within the fifth.

Of the habits of this remarkable insect nothing is known.

#### Tribe VII.—ACANTHOCERINI.

Mandibles and labrum corneous, prominent; antennæ 9- or 10-jointed, club 3-jointed; anterior coxæ conical, prominent; middle coxæ transverse, contiguous; epimera of the mesothorax attaining the coxæ; epimera of the metathorax covered; ventral segments five, not connate; body contractile into a ball; pygidium entirely covered by the elytra; tarsi with slender claws and no onychium.

Oval, convex, smooth, shining insects, living under bark and in rotten wood. They have been considered by Lacordaire and previous authors as forming a sub-tribe of Trogini; but the difference in the side pieces of the mesothorax, which extend to the coxe, as in all other Scarabæidæ, requires them to be separated. Other differences are found in the large size of the scutellum, and the tarsi fringed with long hairs.

Our genera are two, both having 10-jointed antenna:-

Body partially contractile; middle and posterior tibiæ thick.

Acanthocerus.

Body perfectly contractile; middle and posterior tibie compressed.

Sphæromorphus.

Two species of the first genus, and one of the second, from the Atlantic States.

#### Tribe VIII.-NICAGINI.

Nicagus obscurus (Ochodæus obscurus Lec.) is the only member of this tribe known to me. It is an oval, convex insect, more than a quarter of an inch long, brown, densely punctured, and covered with very short pale hair. It resembles in appearance some of the Sericæ, or a nearly smooth Trox. It is found throughout the Atlantic district.

The head is rounded, moderately convex, the front finely margined; the labrum is broadly rounded, hairy; the mandibles short, pyramidal, not very prominent; the mentum is thick, triangular, hairy, pointed in front; the palpi short, the last joint oval. antennæ are 10-jointed, the club 3-jointed, longer in the male than in the female. The anterior coxe are large, conical, prominent; the middle ones nearly contiguous, oblique; the epimera of the mesothorax attain the coxe. The elytra cover the pygi-The abdomen has five free ventral segments. are normal in form; the anterior tibiæ are 4-toothed, the middle and hind ones gradually thickened towards the tip in the female, but slender in the male, with one small sharp tooth and some small denticles on the outer face; the spurs of the hind tibiæ are acute in the male, obtuse in the female; the tarsi are long and slender in the male, but shorter and stouter in the female; the onychium is narrow, and bears two long bristles, as in Lucanidæ.

I have been very much at a loss where to place this curious insect. The joints of the club of the antennæ do not appear to be capable of being brought into absolute contact, as in other Scarabæidæ, and the club therefore appears pectinate. I was, therefore, inclined to consider it as allied to the European Æsalus, among the Lucanidæ, which genus it resembles somewhat in form; but the small size of the oral organs, and the triangular mentum, have induced me rather to place it as a tribe of the Laparostict Scarabæidæ, and the position here given it well corresponds both with its external form and Melolonthine sexual characters. Of its habits I know nothing.

#### Tribe IX.-TROGINI.

Mandibles and labrum corneous, prominent; antennæ 9- or 10-jointed, elub 3-jointed; anterior coxæ rounded, subconical, prominent; middle coxæ nearly round, not oblique, contiguous; epimera of the metathorax covered; epimera of the mesothorax widely separated from the coxæ by the sternum; ventral segments five, not connate; abdomen covered by the elytra; tarsi with moderate claws, but no onychium.

The insects of this tribe are oblong, convex species, living in dried decomposing animal matter. The feet are scarcely fossorial in form; the surface is usually rough, and covered with a crust of dirt, removed with great difficulty. Our species are numerous, and belong to the genus Trox. The larger species, having the sides of the thorax not ciliate with hairs, were placed by Erichson as a separate genus, Omorgus; but the characters, as observed by Lacordaire, are indefinite, and it is not retained.\*

The genus Trox possesses a distinct stridulating organ; it is an elliptical plate, with pearly reflections, occupying the upper part of the external face of the ascending portion of the first ventral segment, and is covered by the elytra; on the inner surface of the elytra, near the margin, about opposite the metathorax, is an oval, smooth, polished space, which has probably some connection with the stridulating organ.

# Sub-Family II.—MELOLONTHIDAE.

This sub-family holds an intermediate position between the laparosticti and pleurosticti. The second pair of abdominal spiracles is placed in the membrane connecting the ventral and dorsal segments, as in other Scarabæidæ; in most species the third, and sometimes the fourth, at the outer limit of this membrane; the fifth and sixth pairs are in the dorsal portion of the ventral segments, but the lines connecting them do not diverge strongly, as in the pleurosticti; the seventh or last pair is usually visible behind the elytra, but variable in position; in other species, forming the first two tribes, however, the spiracles are placed as in the laparosticti, all being in the connecting membrane.

<sup>\*</sup> For a synopsis of our species, see Proc. Acad. Nat. Sci., VII, 211.

The clypeus is usually prolonged and margined in front, so that the mouth is inferior, but in Glaphyrini the mandibles and labrum are prominent; the mandibles are corneous, short, pyramidal; the mentum large, quadrate, with the ligula usually corneous and connate with the mentum, though sometimes free and membranous, as in the laparosticti; the clypeal suture is usually distinct, transverse; the antennæ have from seven to ten joints, and the club is always lamellate, sometimes consisting of six or five, but usually of three joints, and is frequently longer in the males; the tarsi are always perfect, 5-jointed, with the claws variable in form, and the bisetose onychium is present in all the tribes except Hoplini.

The species feed exclusively on living vegetable matter, and it will be seen that the distinctions between it and the other subfamilies are of a negative character; the posterior spiracles do not diverge strongly, as in the pleurosticit; the middle coxæ are not oblique, as in the laparosticti (except Trogini), nor rounded and separated from the side pieces, as in that tribe. There is also a considerable difference in the adaptation of the last abdominal segments. In Melonthidæ the fifth ventral is very frequently connate with the penultimate dorsal, and the sixth segment, usually visible, is rendered so merely by its size and firm consistence causing it to be pushed out into view. Even when the fifth ventral is not connate with the dorsal segment, they form together a regular ring.

In the preceding sub-family the sixth ventral segment is normally visible, although sometimes of small size and retracted; in this case the pygidium or last dorsal segment is covered by the elytra, and in a manner lies upon the fifth ventral. The fifth ventral is never connate with the penultimate dorsal, and does not form with it a regular ring.

In the first tribe of Melonthidæ (Glaphyrini) the sixth ventral is quite visible, and the fifth is not connate with the penultimate dorsal, but still they are adapted together so as to form a regular ring, to which is articulated the protuberance formed by the pygidium and sixth ventral, in the same position as in Melolonthidæ of other tribes in which the sixth ventral segment is external.

According to the position of the abdominal spiracles, the tribes of this sub-family divide into two sets.

# A. LAPAROSTICT MELOLONTHIDAE.

Two tribes form in this division, and only differ from the tribes of the preceding sub-family by individual peculiarities of moment, though by no general character.

Mandibles and labrum prominent; ventral segments six, free.

FLAPHYRINI.

Mandibles and labrum beneath the clypeus; ventral segments connate.

ONCERINI.

#### Tribe I .- GLAPHYRINI.

Oblong, not convex insects, frequenting flowers, and remarkable for the long hairs of the legs and under surface; the head and thorax are also usually densely covered with long hair. The elytra are flat, frequently dehiscent, and do not cover the pygidium; the abdominal spiracles are all situated in the connecting membrane; the fifth ventral joins the propygidium, to form a ring, but is not connate with it, as in the genuine Melolonthidæ; the sixth ventral is somewhat triangular, and unites with the pygidium to form a freely moving conical mass. The epimera of the mesothorax are very large; the metasternum is short; the side pieces broad, with the epimera large; the anterior coxæ are large, prominent; the middle ones transverse, contiguous; claws long, diverging. Antennæ with 3-jointed club.

The legs and tarsi of these insects are formed as in other Melolonthidæ, and the claws of Lichnanthe are slightly toothed at base.

Liehnanthe is found in the Atlantic States, Dasydera in California; both have 10-jointed antennæ.

Maxillary palpi with the last joint oval, deeply excavated; labrum slightly emarginate; claws scarcely toothed, broader at base. Dasydera.

Maxillary palpi with the last joint cylindrical; labrum deeply emarginate; claws with a broad basal tooth.

Lichnanthe.

#### Tribe H.-ONCERINI.

This tribe corresponds with the group Lasiopodes of my synopsis of Melolonthidæ.\* Its characters are very distinct, as follows:—

<sup>\*</sup> Journ. Acad. Nat. Sci., 2d ser., III, 282.

Anterior coxæ large, prominent, conical; mandibles and labrum beneath the reflexed elypeus; antennæ 9-jointed, short; club small, 3-jointed; abdomen very small, with the ventral sutures entirely effaced, last segment free, conical; pygidium slightly prominent; elytra rounded at tip; epimera of mesothorax small, extending to the coxæ; side pieces of metathorax narrow, epimera covered; legs stout, posterior thighs large; tibiæ thick, conical; tarsi very long; claws diverging, slender, with a small bisetose onychium; anterior tibiæ without spurs, posterior tibiæ with two spurs.

Clypeus concave, rounded; mentum linear; claws simple. Lasiopus. Clypeus flattened, parallel, incised each side, and marked with a transverse suture; mentum trapezoidal; claws divided. Oncerus.

Lasiopus is found in Texas, Oncerus in California, each represented by one species. They are the smallest Melolonthidæ known to me, and live on flowers; the upper surface is glabrous, but the legs are fringed with long hairs. Oncerus resembles in form the European Chasmatopterus, but the clypeus is double as in Diphucrania. Lasiopus exactly resembles in appearance Aclopus Er, which, however, has the labrum and mandibles porrected as in the preceding tribe.

## B. PLEUROSTICT MELOLONTHIDAE.

The mandibles and labrum are placed under the clypeus in all of our genera, although prominent in some foreign genera; the posterior pair of spiracles varies in position; in some groups it is external to the suture between the propygidium and the fifth ventral segment, in others it is placed directly on the suture, which in Diplotaxes is almost obliterated. Although the subtribes appear to be quite natural groups, and of equal value, it is difficult, on account of the absence of many typical forms from our fauna, to combine them in such manner as to form well-defined tribes, such as are seen in the previous sub-family; there would appear, however, to be three indicated, which, with their sub-tribes, may be thus tabulated, all represented in our fauna having normally developed oral organs.\*

- A. Tibbe with one spur, which is sometimes obsolete; tarsi without onychium; claws chelate, unequal; last spiracle placed on the suture
- \* In the foreign tribe Pachypodini the oral organs are very feebly and imperfectly developed.

between the fifth ventral and propygidium, which are connate; ventral segments connate; side pieces of metathorax broad.

Middle coxæ contiguous.

1. Hopling.

- B. Middle and hind tibie with two spurs; tarsi with distinct bisetose onychium and equal claws;
  - a. Last spiracle in the fifth ventral, which is not connate with the propygidium; side pieces of metathorax narrow; ventral segments six, free; anterior coxæ conical, prominent. II. SERICINI. Labrum separate from the clypeus; claws chelate.

2. Dichelonychini.

Labrum connate with the clypeus; claws not chelate.

b. Last spiracle placed on the suture between the fifth ventral and the propygidium, which are closely connate.

III. MELOLONTHINI.

Anterior coxæ prominent, conical;

Ventral segments six, not connate;

Hind legs slender.

4. Macrodactylini. 5. Sericoidini.

Hind legs thick. Ventral segments five, subconnate.

6. Diplotaxini.

Anterior coxæ transverse, not prominent; ventral segments six;

Ventral segments connate. Ventral segments not connate. 7. Melolonthini.

8. Macrophyllini.

#### Sub-Tribe 1.-Hopliini (genuini).

Oblong, flattened insects, living on flowers, and having the body more or less covered with flat scales of a yellowish, brownish, or silvery color. But one genus, Hoplia, is found in the United States, and is represented by species in every part of our territory; the males frequently differ from the females by color as well as size, and even by the texture of the scales and hair, so that, whenever opportunity occurs, the sexes of the specimens found should be carefully noted.

The sub-tribe is known by the ligula being corneous, and connate with the mentum, as in the other Melolonthidæ of our fauna; by the small scutellum, and by the middle coxe being nearly contiguous.

The characters of the tribe are: the side pieces of the metathorax are always broad; the club of the antennæ is 3-jointed; the mandibles have an interior plate; the labrum is very short, and concealed under the clypeus; the anterior coxe are large. conical, and prominent; the tibiæ have but a single small terminal spur; the claws are chelate and very unequal, and the onychium is entirely wanting; the ventral segments are connate, and the sixth is indistinct; the last spiracle is on the suture between the propygidium and fifth ventral.

## Sub-Tribe 2.- Dichelonychini.

The genus Dichelonycha alone represents this sub-tribe in our fauna, but is universally distributed. It is distinguished from various foreign sub-tribes having prominent anterior coxæ, distinct labrum, and separate ventral segments, by the ligula connate with the mentum, the large vertical and deeply emarginate labrum, and by the sternum not being prominent. The last spiracle is placed outside of the suture between the propygidium and the fifth ventral segment, which are not connate to form a solid ring.

From Macrodactylini it differs by the position of the last abdominal spiracle; by the claws being chelate, or capable of being folded along the last joint of the tarsi, though they are not usually seen in that position; and by the large, prominent eyes.

In Dichelonycha the thorax has a narrow anterior membranous margin, and the claws are equal and cleft at tip.

They are elongate hairy insects, usually of metallic color, sometimes found in large numbers on leaves of trees.

# Sub-Tribe 3.—Sericini (genuini).

This sub-tribe is also represented in our fauna by a single genus, Serica, of universal distribution. They are oblong, convex insects, of a brown color, usually with iridescent reflections; the elytra are indistinctly sulcate; the pygidium is sometimes partly covered by the elytra.

It is readily distinguished from all others of this family by the labrum being connate with the under surface of the clypeus, and therefore indistinct.

The fifth ventral segment and the propygidium are separated by a distinct suture, and the spiracle is placed external to this suture, half way between the anterior and posterior margin of the ventral segment. The posterior coxe are flat, and broadly dilated.

#### Sub-Tribe 4.-Macrodactylini.

Three species of Macrodactylus, distributed from the Atlantic to Arizona, alone represent this group in our fauna; they are

commonly known as rose-bugs, and are very destructive to roses when in bloom. They are elongate, brownish insects, densely covered with ochreons scales, so as to appear yellow; the tarsi are very long; the claws long, slender, diverging, cleft at tip; the fifth ventral segment and propygidium are connate, forming a solid ring, and the last spiracle is placed on the suture. The labrum is not connate with the elypeus; the mentum is narrow, and channelled; the anterior coxe are conical and prominent; the ventral segments are not connate, and the legs are slender.

# Sub-Tribe 5.—Sericoidini.

This sub-tribe, as defined by Lacordaire, differs from the others having conical, prominent anterior coxæ, by the labrum being distinct, and the mentum not clongate and channelled, as in Macrodactyli. I have separated a portion having chelate ungues to form the sub-tribe Dichelonychini, and refer to the genuine Sericoides, a curious genus found in Florida, although I am not able to determine to what foreign genera it is allied.

The ligula is connate with the mentum, which is concave; the labrum is short and emarginate; the mandibles not prominent; the clypeus very thick, margined in front; the antennæ 10-jointed, the third, fourth, and fifth joints closely connected; the club 3-jointed, clongated in the males; the last spiracle is placed on the suture between the connate fifth ventral and the propygidium; the ventral segments are six, not connate; the legs are stout, the hind femora and tibiæ much thickened; the inner claw of the anterior tarsi, and the outer claw of the middle tarsi (at least of the male), is suddenly and broadly dilated at base into a large rounded prominence.

I have named this genus Hypotrichia. It is an oval, elongate insect, half an inch long, of a piceous color, finely punctured above, with the thorax transverse, rounded, covered with short grayish hair; body beneath densely clothed with long hair; elytra finely punctured and pubescent. The species is *II. spissipes*.

### Sub-Tribe 6.-Diplotaxini.

Small, oblong, slightly convex species, usually brown, with the elytra most frequently marked with rows of punctures alternately approximate, with the wider spaces irregularly punctured. They

are distinguished from all other groups having the anterior coxæ prominent and the side pieces of the metathorax narrow; by the sixth ventral segment not being visible; the fifth and propygidium are closely connate, with the suture indistinct, and the spiracle is placed midway between the anterior and posterior margins; the ventral sutures are distinct in all of our genera, and the apical margin of the thorax is membranous, except in Alobus; the antennæ are 10-jointed, except in Diazus.

Anterior claws with a slightly prominent tooth near the tip; middle and posterior claws cleft.

Orsonvx.

Claws alike on all the feet;

Last joint of maxillary palpi oval, somewhat pointed;

Antennæ 9-jointed; claws entire.

DIAZUS.
DIPLOTAXIS.

Antennæ 10-jointed; claws cleft or toothed. Diplotaxis.

Last joint of maxillary palpi elongate, cylindrical; claws with a very large tooth.

Alobus.

#### Sub-Tribe 7.-Melolonthini (genuini).

This is the first of the sub-tribes in which the anterior coxæ are not prominent, but simply transverse, and contained entirely in the coxal cavities. It is distinguished from the other sub-tribes having this character, by the labrum being deeply emarginate, and the ventral segments connate, though the sutures are frequently not effaced.

The apical margin of the thorax is never membranous; the fifth ventral segment is connate with the propygidium by an angulated suture, sometimes partly obliterated; the spiracle is placed at the angle of this suture, nearer the posterior than the anterior margin. The genera indicate three groups, distinguished as follows:—

Side pieces of metathorax narrow;

Labial palpi on the under surface of the ligula. Labial palpi at the sides of the ligula. Side pieces of metathorax wide. RHIZOTROGI.
TOSTEGOPTERÆ.
MELOLONTHÆ.

#### Group I .- Rhizotrogi.

This group is sufficiently distinguished by the labial palpi\* being inserted on the under surface of the ligula near the sides.

\* For an important note concerning the structure of the ligula and position of the labial palpi in various groups of Melolonthidæ, vide Duval, Gen. Col. Europe, 111, 44.

The species are glabrous, or pubescent above; the thorax is margined in front. The side pieces of the metathorax are narrow, with the epimera moderate in size, or small. One spur of the hind tibiæ is frequently connate with the tibiæ in the males. The third joint of the antennæ is not elongated.

The genera are not well defined, and in those having many species considerable variation in the generic characters is seen.

Some of the species of Lachnosterna, known familiarly under the name June bugs, are very abundant, and do much harm by destroying the leaves of fruit-trees.

Claws never serrate, with a single tooth beneath;

Ligula deeply emarginate;

Antennæ 10-jointed.

Antennæ 9-jointed.

Ligula nearly truncate;

Labrum bilobed.

Labrum concave, not bilobed.

Claws more or less serrate, sometimes toothed.

Eugastra. Endrosa.

Lachnosterna.

Gynnis. Listrochelus.

Eugastra (two species) belongs to the interior part of Texas; Listrochelus to the interior of the continent, from Platte River to the Colorado of California. One species of Lachnosterna is known from California; the others all belong to the Atlantic slope of the continent.

## Group II .- Tostegopteræ.

In this group the labial palpi are inserted at the sides of the ligula, as in the next group, but the side pieces of the metathorax are narrow, as in the Rhizotrogi. The third joint of the antennæ is not elongated. The thorax is margined in front.

The genus Tostegoptera contains two species, *T. lanceolata* from Kansas and Texas, and *T. æqualis* from Texas. The females are ovate and very convex, the males oblong; they are clothed with small scales; the spurs of the hind tibiæ are free in both sexes; the fourth and fifth ventral segments of the male are furnished each with a small longitudinal erest at the middle. The antennæ are 10-jointed, with 3-jointed club; the joints 3, 4, and 5, are closely connected. The claws are slender, with a tooth near the base.

#### Group III .- Melolonthæ.

Large species, frequently ornamented with spots or stripes of squamiform hair, and distinguished by the broad side pieces of the metathorax, the epimera of which are large. The fifth ventral segment and the propygidium are connate by an angulated suture, the spiracle is placed exactly at the angle; the thorax has no anterior marginal line.

The club of the antennæ of Polyphylla assumes an enormous development in the male, and consists of six joints; in the female it is smaller.

Two genera are in our fauna, both having a spur on the anterior tibiæ; Polyphylla has universal distribution, Thyce is found in New Mexico.

Antennæ with the third joint elongated, club many-jointed. Polyphylla. Antennæ with the third joint not elongated; club (Q) small, 3-jointed.

THYCE.

## Sub-Tribe S .- Macrophyllini.

The genera of this sub-tribe were known only from Africa, Australia, and Polynesia, until the discovery of *Phobetus* Lec., a Californian genus, allied, apparently, to the South African *Tryssus* Er., the characters of which are very indefinitely made known; but, from the difference of locality, the two genera cannot be supposed to be identical.

The only character by which this sub-tribe is distinguished from the preceding is that the ventral segments are not connate. The anterior coxe are a little more prominent, and the side pieces of the metathorax are equally wide.

The generic characters of Phobetus are: antennæ with the club of the male 3-jointed, as long as the rest of the antenna; labrum transverse, concave, somewhat emarginate; prothorax margined in front, and fringed with membrane; claws with a broad tooth near the tip, and an indistinct one near the base.

The species are robust in form, nearly seven-tenths of an inch long, with the margins of the thorax and body, and the whole of the breast, covered with very long hair; the elytra are glabrous, nearly smooth, with a deep sutural stria.

In *Phobetus comatus* the anterior part of the thorax is clothed with long hairs, and the antennæ are 9-jointed; in *P. testaccus* 

the disk of the thorax is free from hair, and the antennæ have ten joints.

# Sub-Family III.—SCARABÆIDAE PLEUROSTICTI.

In this sub-family the abdominal spiracles are arranged; the second pair in the membrane connecting the dorsal and ventral segments, the third on the outer limit of the membrane, and the others in the dorsal portion of the ventral segments; the last two pairs diverge strongly, and are usually visible on the sides of the abdomen, below the clytra, which do not cover the pygidium. The clypeus is sometimes prolonged, but rarely concave, as in most Melolonthidæ, and in many the mandibles, though always short, project beyond the clypeus. The mentum is sometimes quadrate, sometimes pointed, with the ligula always corneous and connate; antennæ 9- or 10-jointed, with the club 3-jointed, rarely elongated in the males; the epimera of the mesothorax reach the coxæ, and are variable in form; the tarsi are perfect, and the onychium is distinct.

Three tribes, separated by the following characters, exist; in all of them the last spiracle is placed on the suture between the fifth ventral segment and the propygidium, which are closely connate, and is usually nearer the anterior than the posterior margin, though in certain genera of the third tribe the reverse is the case.

Claws of the tarsi unequal. Claws of the tarsi equal;

RUTELINI.

Anterior coxæ transverse, not prominent.
Anterior coxæ conical, prominent.

DYNASTINI. CETONIINI.

#### Tribe I.-RUTELINI.

These insects have entirely the form of certain Melolonthidæ, and are only distinguished from them by the position of the spiracles, and the unequal size of the tarsal claws, which are chelate. In our genera the tarsi are short, with the joints cylindrical and closely connected; the epimera of the mesothorax have in some genera a tendency to ascend between the thorax and clytra, as in Cetonia; the side pieces of the metathorax are narrow, with the epimera visible. The species live on leaves of trees; some are ornamented with metallic colors, and one of them, *Plusiotis glo-*

riosa, from the copper-mines of the Gila, of a pale green color, with the margins of all the parts of the body and broad stripes on the elytra of a pure polished gold color, is the most beautiful Coleopterous insect known to me.

But two groups are found in our country, and in both the labrum is horizontal, short, and sinuate, and the mentum quadrate.

Elytra with a membranous margin. Elytra without membranous margin. Anomalæ, Rutelæ,

#### Group I .- Anomalæ.

These insects are of small size, have 9-jointed antennæ, and the mandibles in repose do not project beyond the clypeus. Only two genera occur in our fauna, and neither has yet been found on the maritime Pacific slope of the continent. One of the anterior and middle claws is cleft in all of our species.

A. Epimera of the mesothorax inferior; elytra not emarginate at base; Prosternum not prominent behind the coxæ; clypeus parabolic.

ANOMALA.

B. Epimera of the mesothorax ascending; elytra emarginate at base; Clypeus parabolic; prothorax sulcate or impressed. Strigoderma.

The species of the last-named genus have the elytra flattened and deeply sulcate; but two are included in our territory.

## Group II.-Rutelæ.

Insects of moderately large size, having 10-jointed antennæ, and prominent mandibles; none have yet been found on the Pacific slope. Our genera belong to the sub-groups Pelidnotæ and Arcodæ, both having the thorax margined at base, and may be tabulated thus, all of our species having entire simple claws:—

Clypeus separated from the front by a suture.

Mandibles externally bidentate at tip.

Mandibles not toothed externally.

Clypeus not separate from the front.

Last joint of tarsi without any inferior prominence.

Cotalpa.

Pelidnota is represented only by the common *P. punctata*, a reddish-yellow insect, with three black spots on each elytron; Plusiotis by the species from the Gila River before mentioned; Cotalpa by the common *C. lanigera*, of a pale yellow color above, with a golden reflection, beneath dark metallic green, covered with white hair; *C. granicollis* Hald., a smaller, coarsely punc-

tured, and more hairy species, of a dark green color, with reddishbrown elytra, is found in Utah.

The genus Antichira (*Macraspis* McLeay) may be expected to occur in Texas; a species is found in the neighboring parts of Mexico, and is oblong, of a brilliant emerald-green metallic color. It will be known by the thorax not margined behind, and the very large scutellum. It belongs to the group Antichiræ.

#### Tribe II.-DYNASTINI.

Insensible transitions through foreign genera connect closely this tribe with the preceding, but those found in our fauna will not produce much difficulty in the mind of the student.

The mentum is usually narrowed and subacuminate in front, rarely truncate. The claws of the tarsi are equal, and simple, except in the male of Ligyrus relictus, where the inner claw of the anterior tarsi is thickened, dilated, and suddenly incurved, and in Polymæchus Lec., where the outer claw of the middle and hind tarsi of the male is armed with a strong tooth. The labrum, always visible in the preceding tribe, is here almost invisible, and sometimes in part membranous.

This tribe, among its foreign members, numbers the largest Coleoptera existing; some of the genera are remarkable for the size and form of horns on the thorax and head of the males.

Organs of stridulation are found in many genera; they consist of rugose spaces, usually on the propygidium, sometimes on the inner surface of the elytra. The fifth ventral segment and the propygidium are connate, and the spiracle is on the suture nearer the anterior than the posterior margin.

The sub-tribes represented in our fauna are as follows:—

Labial palpi inserted at the sides of the mentum;

Head and prothorax unarmed in both sexes. Cyclocephalini.

Head and prothorax armed, or at least tuberculate, in both sexes;

Anterior feet of the males not elongated. Orycri

Anterior feet of the males flor elongated.

Anterior feet of the males elongated.

Dynastini.

Labial palpi inserted behind the mentum.

PHILEURINI.

#### Sub-Tribe 1.—Cyclocephalini.

But two genera of this sub-tribe exist in our fauna; they have the appearance of Melolonthidæ, and are readily distinguished from the following sub-tribes by the thorax and head being entirely destitute of tubercles, and by the clypeus being flat, parabolic and finely margined; the mandibles project but slightly, and are not toothed externally. The males have the fifth joint of the anterior tarsi much enlarged, and the club of the antennæ is sometimes longer than in the female. Stridulating organs none; posterior tibiæ not festooned nor expanded at tip; mentum trancate in front; antennæ 10-jointed (9-jointed only in certain species of Cyclocephala); the thorax is only partially margined at the base; the prosternum is prominent behind the coxæ; the tarsi are cylindrical.

Our two genera have the mesosternum scarcely visible between the middle coxæ; Cyclocephala has the mandibles narrow, scarcely curved; Chalepus has them broad, rounded externally, and curved.

Cyclocephala is generally diffused; Chalepus has not yet been found on the Pacific slope.

# Sub-Tribe 2.—Oryctini.

The insects of this sub-tribe vary much in size and form, but have the following characters in common:—

Labial palpi inserted at the sides of the mentum; mandibles prominent, usually toothed externally; head more or less tuber-culate (except in Strategus), always with some elevations, sometimes armed with a horn; thorax usually tuberculate or horned; anterior feet not elongate in the males; clypeus not parabolic, but rather triangular, reflexed with one or two small apical teeth; mentum narrowed in front; posterior tibiæ expanded at the extremity (except in Polymæchus), sometimes digitate; first joint of hind tarsi more or less elevated at its upper extremity. Stridulating organs are found except in Aphonus and Polymæchus.

The sexual characters are usually in the greater development of horns or tubercles in the male, rarely (Ligyrus relictus) in the thickening of the outer claw of the anterior tarsi; and, in Polymæchus, in the elongation of the antennal club, and the outer claws of the middle and hind tarsi being armed with a strong tooth.

Three groups are represented:—

Posterior tibia expanded (sometimes but slightly) at the extremity, truncate, and ciliate;

Antennæ alike in both sexes.

PENTODONTES.

Club of antennæ elongated in the male. Posterior tibiæ digitate or festooned at the extremity. ORYCTOMORPHI.
ORYCTES.

## Group I.-Pentodontes.

Moderate-sized, robust, convex species, having the head slightly tuberculate, or rather, in our species, with small anterior ridges or teeth, alike in both sexes; thorax sometimes with a small acute tubercle near the anterior margin, sometimes entirely uniform, convex.

Two genera occur in our fauna: Ligyrus, generally diffused; Aphonus, from the Atlantic and Central districts.

Stridulating organs on the inner surface of the elytra; mandibles toothed externally.

LIGYRUS.

Stridulating organs entirely wanting; mandibles not toothed. Aphonus.

For the description of our species, see Proc. Acad. Nat. Sci., Philadelphia, VIII, 19.

# Group II.-Oryctomorphi.

I would refer to this group the very anomalous genus Polymechus Lec.,\* although, in the opinion of Prof. Lacordaire, it may be placed in the sub-tribe Cyclocephalæ, near Pachylus, a verv anomalous genus found in Brazil. It is manifestly a transition form from Dynastini to Melolonthidæ; but, on account of the form of the elypeus, which is trilobed, strongly margined, with two small apical teeth, and a short transverse carina each side behind, it would seem to belong more naturally in the present sub-tribe, with which also the narrow mentum agrees. It resembles the foreign genera of this group in having the club of the antennæ elongated in the males, but differs by the thorax not impressed, and the strongly toothed outer claw of the middle and hind tarsi. It also agrees with them in the hind tibiæ scarcely enlarged at the extremity, and the first joint of the hind tarsi not elevated. It has no organs of stridulation. The mandibles are not toothed externally.

The only species, *P. brevipes*, is found in New York and Pennsylvania, but is quite rare. It is oblong-oval dark brown, seven-tenths of an inch long, with the elytra punctured in rows, becoming confused towards the suture.

<sup>\*</sup> Proc. Acad. Nat. Sci., Phil., VIII, 23.

## Group III .- Oryctes (genuini).

Large insects, having, in our genera, the mandibles prominent, and sometimes toothed externally, sometimes simple; the middle and hind tarsi expanded at tip, and truncate in some, digitate in others; first joint of hind tarsi elevated. Our genera possess stridulating organs, covering the greater part of the propygidium. The head is horned in the male and tuberculate in the female of Xyloryctes, but has only two very minute tubercles in Strategus.

Mandibles not toothed externally. Mandibles strongly toothed.

XYLORYCTES. STRATEGUS.

No species has been found west of the Rocky Mountains.

#### Sub-Tribe 3.- Dynastini (genuini).

One species, *Dynastes Tityus*, of large size, found in the Southern States, alone represents this sub-tribe in our fauna. It is of a greenish-gray color, with black spots scattered irregularly over the elytra. The characters of the tribe are:—

Labial palpi inserted on the sides of the mentum, which is acuminate in front; mandibles prominent; head armed with horns in the male, tuberculate in the female; thorax horned in the male, simple and not impressed in the female; anterior feet longer in the males. In Dynastes the first joint of the posterior tarsi is not elevated, and there are no stridulating organs.

#### Sub-Tribe 4.- Phileurini.

This sub-tribe, of which we possess but the genus Phileurus, is at once distinguished from the others by the labial palpi inserted behind the mentum. Other characters are: the mandibles prominent; head and prothorax alike in both sexes, the former with two short horns or tubercles, the latter tuberculate in our species, though not so in certain foreign ones; legs alike in both sexes; hind tibiæ digitate or truncate at tip, not expanded; first joint of hind tarsi elevated; stridulating organs on the inner surface of the elytra, along the lateral margin.

In Phileurus the mentum is of moderate size, oval, slightly emarginate in front, and the first joint of the hind tarsi is prolonged into a spine at the extremity.

Four species are known in our fauna, one of which, P. valgus,

is also found in South America; of the others, *P. truncatus* inhabits the Southern States, *P. cribrosus* Texas, and *P. illatus* California.

#### Tribe III.—CETONIINI.

In addition to the conical prominent anterior coxæ, this tribe is distinguished by the occurrence in it of certain peculiarities not found at all, or only exceptionally, in the other tribes of pleurosticti.

In the majority of genera the mandibles are feebly developed, and in great part membranous; they and the labrum are always under the elypeus; the antennæ are always 10-jointed, with 3-· jointed club; the internal lobe of the maxillæ is obsolete; the elytra do not cover the pygidium, and the epipleuræ are not distinct; the side pieces of the mesothorax are large, and ascend between the thorax and base of the elytra so as to be usually visible from above; the last pair of spiracles is situated on the suture between the connate fifth ventral and propygidium, but is variable in position, being sometimes near the posterior margin, sometimes near the anterior one; the claws are always equal and simple, with a distinct onvehium, which, however, is very small in Cremastochilus; the ventral segments are six, not connate, although very slightly movable; the mesosternum is usually prominent between the coxe; the side pieces of the metathorax are variable in size, but the epimera are always visible. The genuine Cetoniæ, in flying, do not raise or expand the elytra, as most Coleoptera do, but pass the wings out from the side, under the elytra, which do not embrace at all the sides of the body.

Both sub-tribes are found in our fauna.

Epimera of the mesothorax visible from above. Epimera of the mesothorax not visible from above. CETONIINI. TRICHIINI.

#### Sub-Tribe 1.-Cetoniini (genuini).

The elytra in the genera here placed are always sinnate on the side, and the mesosternum is almost always prominent; the epimera of the mesothorax ascend between the prothorax and elytra, and are visible from above. The foreign genera exhibit an intricate network of affinities, which all the labor of Burmeister and Lacordaire has failed to represent in a synoptic form; our fauna is so limited, however, that our groups may be thus defined:—

Mandibles feeble, in great part membranous; last spiracle midway between the anterior and posterior margin of the segment;

Prothorax lobed at the base, covering the scutellum.

Gymnetes.

Scutellum not covered by the thorax.

Cetonie.

Mandibles with the outer part thickened; last spiracle near the posterior margin of the segment, the suture nearly effaced. CREMASTOCHILL.

## Group I.-Gymnetes.

But two genera of this group occur in our fauna. Allorhina having the clypeus armed with a short horn; Gymnetis with the clypeus flat.

Allorhina nitida extends over the Atlantic slope, and is a well-known green, velvety insect, nearly an inch long, somewhat pointed in front, with the sides of the thorax and elytra usually brownish yellow. Other species will probably be found in our southwestern territories.

Gymnetis Sallei is found in Louisiana, Texas, and Mexico. It is a beautiful velvety, olive-colored insect, of the same form as Allorhina, three-fourths of an inch long, variegated with pale yellow marks, which unite on the margin of the thorax and elytra.

No species of this group has yet been found on the Pacific slope.

# Group II .- Cetoniæ.

Our species, although arranged by Burmeister in three genera—Euphoria, Erirhipis, and Stephanucha—have been united by Lacordaire with other foreign forms, and for the combined genus he retains the name Euryomia, distinguished from the other genera by the maxillæ not toothed, and the elypeus usually parabolic, sometimes parallel, and rarely emarginate in front. They are all of moderate size, nearly parallel behind, and pointed in front.

None have yet been found on the Pacific slope.

# Group III.-Cremastochili.

Besides the greater development of the mandibles, and the position of the last spiracle near the posterior extremity of the obliterated suture between the fifth ventral and propygidium, the mentum in our species affects a very unusual form; it is, in fact, a large cup-shaped body, sometimes acute behind, sometimes incised, but passing by gradation from one to the other form. The mesosternum is not protuberant.

The species are elongate, dull black or brown, coarsely punctured insects, with the upper surface flattened, and entirely destitute of the varied colors which render the species of the two previous groups so ornamental.

I regard our species as all belonging to one genus, Cremastochilus, although the differences in form of the mentum are considerable; Psilocnemus Burm. is one of these variant forms, but is established on a species (P. leucosticta) unknown to me.

True Cremastochilus, having the mentum deeply concave, and incised behind, is confined to the Atlantic slope, as far as the Platte River; the groups with the mentum pointed behind are distributed from the Platte River to the Pacific Ocean.

#### Sub-Tribe 2.—Trichiini.

These insects are readily distinguished by the side pieces of the mesothorax not rising so as to be visible above, and by the elytra not being sinuate on the sides; the thorax is narrower than the elytra, and usually rounded on the sides, giving the insects a different appearance from those of the preceding sub-tribe; the last spiracle is nearer the anterior than the posterior margin of the segment in Osmoderma, about the middle in Trichius and Gnorimus, and near the posterior margin in Valgus.

No species of this sub-tribe has yet been found on the Pacific slope.

Our four genera may be thus arranged, none having the mesosternum protuberant:-

Posterior coxæ contiguous:

External lobe of maxillæ corneous. External lobe of maxillæ coriaceous, lamelliform; Osmoderma.

Elytra longer than wide, thorax sinuate at base.

GNORIMUS.

Elytra not longer than wide, thorax rounded at base.

TRICHIUS. VALGUS.

Posterior coxe widely separated.

I have strong doubts whether Gnorimus should be retained as distinct from Trichius.

# FAM. XXXIII.—BUPRESTIDAE.

Mentum moderate, subquadrate, or triangular, sometimes transverse, the anterior part in many genera membranous; ligula frequently not prominent; labial palpi short, 3 jointed.

Maxillæ exposed at the base, with ciliate, unarmed lobes;

palpi short, 4-jointed.

Antennæ inserted upon the front, 11-jointed, serrate, the outer joints usually furnished with pores, which are diffused on the sides, or concentrated in a fovea on the inferior margin or at its extremity.

Head immersed in the thorax to the eyes, which are elliptical, and never emarginate; labrum small, prominent; man-

dibles short, stout.

Prothorax with the side pieces not separate from the upper piece; coxal cavities separated by the prosternum, widely open behind; prosternum prolonged behind, fitting into the mesosternum, or even the metasternum.

Mesosternum short, excavated, so that the visible part is frequently divided into two portions, which complete the anterior coxal cavities; side pieces large, diagonally divided;

epimera narrowly attaining the coxæ.

Metasternum with the side pieces narrow; epimera visible. Elytra covering the abdomen, or leaving only the pygi-

dium exposed; epipleuræ narrow; wings large.

Abdomen with five ventral segments, the first and second connate, the others free; the fifth joint frequently emarginate

in the males, leaving a small sixth joint visible.

Anterior coxæ separate, small, globular, received between the pro- and mesosternum, with the trochantin distinct; middle coxæ separate, globular, with the trochantin distinct; posterior coxæ transverse, usually nearly contiguous, concave behind, dilated into a plate partially covering the femora when retracted.

Legs short; tibiæ usually slender, with two small terminal spurs; tarsi 5 jointed, the first four joints with more or less developed membranous appendages beneath; onychium none.

The species of this family are, in general, elongate in form, and ornamented with metallic colors; the larvæ perforate the stems of living plants, and the perfect insects are found partly on flowers, partly sunning themselves on trees, during the hotter seasons of the year.

A monograph of the species belonging to our fauna has been published by me in the Transactions of the American Philosophical Society, vol. XI, in which, with slight modifications, I adopted the classification of Lacordaire; the characters of the groups have been farther modified by the views of Duval, and the divisions here proposed are based upon renewed observations, though the

groups themselves are searcely different from those previously adopted by me.

I would arrange the groups represented in our fauna into the following tribes:—

A. Hind coxe with the plates distinctly dilated internally, cut off externally by the prolongation of the abdomen; their anterior margin straight, the hind margin oblique;

Mesosternum divided.

Buprestini.

Mesosternum emarginate, not divided.

THRINCOPYGINI.

B. Hind coxe with the plates scarcely dilated internally;

Front not narrowed by the insertion of the antennæ; thorax truncate at base;

Mesosternum emarginate, not divided.

Julodini.

Mesosternum scarcely visible.

Haplostethini.

Front narrowed by the insertion of the antennæ; thorax lobed at the base.

AGRILINI.

### Tribe I.-BUPRESTINI.

The front is usually not contracted by the insertion of the antennæ, but in Chrysobothres is as much so as in the tribe Agrilini; the prosternum is sometimes obtusely, sometimes acutely angulated on the sides, behind the eoxæ, and its lateral sutures are oblique: the mesosternum is always divided, so that the eavity for the reception of the prosternum is formed both by the meso- and metasternum; the side pieces of the latter are always visible, and the epimera are triangular, with the hind margin sometimes straight, and applied to the coxe, sometimes partly covered by the prolongation of the abdomen, which intervenes between the coxe and the margin of the body. The hind coxe are broader internally; their anterior margin is straight and transverse; the hind margin is oblique. The antennal pores are diffused on the sides of the joints in the first group, concentrated in marginal foveæ in the others. The species are more or less flattened in form.

Our groups are the following:—

Epimera of metathorax triangular, uncovered; prosternum obtusely angulated behind the coxe:

Mesosternum and metasternum closely united.

CHALCOPHORE.

Mesosternal suture distinct.

BUPRESTES.

Epimera of metathorax partly covered by abdomen; prosternum acutely angulated behind the coxe;

Front not contracted by insertion of antenna.

ANTHAXIÆ.

Front contracted by insertion of antenuæ.

Chrysobothres.

## Group I.—Chalcophoræ.

Insects of large size, readily known by the antennal pores being diffused on the sides of the joints, but sometimes only near the inferior margin, and by the mesosternal suture being indistinct.

Chalcophora is generally distributed through our territory, and some of the species are abundant in the Middle States; the other two genera are found in Texas, New Mexico, and Arizona. The male of Chalcophora has a distinct sixth ventral segment.

Antennæ inserted under a ridge; mentum rounded in front; posterior tarsi with the first joint elongated.

Grascutus.

Antennæ inserted in small foveæ; mentum broadly emarginate in front; posterior tarsi with the first joint elongated. Chalcophora.

Antennæ inserted in large foveæ; mentum broadly rounded in front; posterior

terior tarsi with the first joint not elongated. PSILOPTERA.

#### Group II .- Buprestes.

Species of moderate size and usually of elongate form; the antennal cavities are small, and the front is not lobed before the antennae; the pores of the latter are placed in foveæ situated on the inferior margin of the joints, except in Cinyra, where they are terminal. The species of Dicerca and Pæeilonota are of a dull bronze color; some are abundant; they are remarkable for the tips of the elytra more or less prolonged, forming a kind of tail. Sexual characters vary in the different genera, and in the groups of species of each genus; they are found in the form of the anterior or middle tibiæ, in the outline of the tip of the fifth ventral segment. I have not observed a distinct external sixth segment in the male of any species. Dicerca and Ancylochira are generally diffused; the other two genera are not yet found west of Platte River.

Prosternum obtusely rounded behind;
Mentum entirely corneons;
Scutellum small, rounded.
Scutellum very transverse, truncate.
Mentum membranous anteriorly.
Prosternum acute at tip.

DICERCA.
PŒCILONOTA.
ANCYLOCHIRA.
CINYRA.

#### Group III .- Anthaxiæ.

Species of small size, usually flattened, rarely linear; the prosternum is acutely angulated on the sides behind the coxe, and acute at tip; the mesosternum is consequently narrowly divided; the suture separating it from the metasternum is distinct; the antennal pores are placed in foveæ at the extremity of the inferior margin of the joints; the front is not lobed before the antennæ.

But two genera, both diffused over our whole territory, are found in our fauna:—

Mentum coriaceous in front; prothorax sinuate at base. Мелахорила. Mentum entirely corneous; prothorax truncate at base. Ахтиахіа.

The sculpture of Anthaxia is peculiar, consisting on the head and thorax of shallow punctures, with the intervening lines forming a fine network.

# Group IV.—Chrysobothres.

This is the first of the groups in which the antennæ are inserted at the inner extremity of two short oblique grooves, by which the front is narrowed; before these grooves it again is widened, and the anterior margin is emarginate in an angular form, so as to produce a bilobed appearance. The mentum is corneous at base, membranous at apex; the prosternum is acutely angulated on the sides behind the coxæ, and is also acute at tip; the mesosternum is larger than usual, and only narrowly divided; the scutellum, small in all the preceding groups, is here large and acuminate; each elytron is rounded or snbangulated at base, and enters the base of the thorax, which thus becomes lobed. The anterior femora in our species are strongly toothed; the membranous lobes of the first and second joints of the tarsi are obsolete.

The species are of a rather broad and usually flattened form, with the elytra impressed in the form of bands or spots, sometimes of a brilliant metallic color; the sexual differences are in the form of the anterior or middle tibie, and in the tip of the abdomen. The species of Chrysobothris are numerous, found in our entire territory, and many of them closely allied; Actenodes is found on the Atlantic slope, from New York to Texas. We have now but two species in our fauna; but as the genus is well represented in Mexico, other species may be expected to occur in Texas.\*

Third joint of tarsi truncate; hind tarsi with the first joint elongated.

Chrysobotheris.

<sup>\*</sup> Motschulsky (Bull. Mosc., 1859, H, 184) has described Belionota californica. The other species of the genus known inhabit the East Indies and Madagascar. It is distinguished from Actenodes by the scutellum being large, and the metasternum deeply emarginate.

Third joint of tarsi much prolonged at the side; hind tarsi with the first and second joints equal; scutellum small.

Actendes.

#### Tribe II.—THRINCOPYGINI.

This tribe contains but a single genus, Thrincopyge Lec., with two species from New Mexico; the general form is elongate and depressed.

The front is not contracted by the insertion of the antennæ; the mandibles are short, thick, and obtuse; the mentum is entirely corneous; the antennal pores are situated in small marginal foveæ. The scutellum is distinct. The prosternum is broad, with the sutures oblique; the sides are not angulated behind the coxæ, and the tip is obtusely rounded, fitting into the emarginate mesosternum; the mesosternal suture is distinct. The hind coxæ are just as in the preceding tribe, dilated inwards, with the anterior margin straight, the posterior oblique; the epimera of the metathorax are triangular, not covered at all by the abdomen. The last ventral segment has a deep groove running around the sides and tip. The tarsi are broad; the ungues simple and distant.

#### Tribe III.—JULODINI.

The species of this tribe are convex, and of a conical form, narrowed behind, rarely cylindrical or very elongated; nearly all are clothed with erect hair. The front is not contracted by the insertion of the antennæ; the mentum is entirely corneous; the antennal pores are diffused in the foreign genus Julodis, but contained in marginal foveæ in our genera. The thorax is truncate at base, and closely applied to the elytra. The prosternum is broad, with the sutures oblique; the sides are not angulated behind the coxe, and the tip is obtusely rounded. The mesosternum is deeply emarginate, rarely divided; the mesosternal suture sometimes distinct, sometimes obsolete. The hind coxe are narrow, not dilated internally; the anterior margin is straight or slightly concave, the hind one scarcely oblique; externally they are slightly wider than at the middle, and the usual prolongation of the abdomen, which limits them, is covered by the clytra. The epimera of the metathorax are triangular and small, but not covered by the abdomen. The first joint of the hind tarsi is elongated in our genera; the claws are either simple or toothed.

Our four genera belong to the group Aemæoderæ, and might be considered as types of as many sub-groups.

Hind coxæ with the anterior margin somewhat concave; side pieces of metathorax not covered; scutellum visible; claws simple. Polycesta. Hind coxe with the anterior margin straight;

Claws with a broad basal tooth;

Scutellum indistinct; side pieces of metathorax partly visible.

Acmæodera.

Scutellum visible; side pieces of metathorax covered by the elytra.

Claws simple; scutellum visible; side pieces of metathorax visible.

Polycesta and Aemæodera are found on both sides of the continent, Ptosima in the Atlantic States, and Chrysophana in Oregon; the last genus is entirely glabrous above, the others are clothed more or less densely with erect hair.

#### Tribe IV.—HAPLOSTETHINI.

This tribe contains but a single species from the Atlantic States, Haplostethus subcyaneus Lee., and is the smallest Buprestide known. The form is cylindrical, and resembles somewhat certain Aemæoderæ; the color is bluish black.

The antennæ are inserted in eavities narrowing the front, which does not expand again anteriorly, as in the next tribe; the mouth is small, deflexed, but not applied to the prosternum; the mentum is entirely corneous. The prothorax is truncate at base, closely applied to the elytra. The prosternum is broad, truncate before and behind, with the lateral sutures parallel. The mesosternum is not visible; the metasternum is broadly truncate in front, and applied to the prosternum; the epimera of the metasternum are triangular, not covered by the abdomen. The hind coxe are not dilated inwards, slightly broader outwards, and extend to the elytra; the anterior margin is slightly concave, the hind one not oblique. The legs are not contractile; the claws are broadly toothed.

#### Tribe V .- AGRILINI.

In this tribe the body is usually slender, sometimes, however. very broad and flat; in both cases it is narrowed behind. species are found on leaves and flowers.

The front is strongly narrowed by the insertion of the antenna,

and is then expanded again, forming two diverging lobes; the anterior part of the head is vertical; the month inferior, and applied to the prosternum in repose; the mentum is large, triangular, and corneous. The prothorax is lobed at the base, receiving the convex bases of the elytra. The prosternum is broad in front, with oblique sutures, cuneate behind, and scarcely angulated behind the coxæ; the mesosternum is small, completely and frequently widely divided; the metathoracic epimera are small, and frequently not visible. The hind coxæ are but slightly dilated internally, narrowest at the middle, and broader externally, with the anterior margin more or less concave, and the hind margin not oblique. The legs are contractile, and the claws are strongly toothed, or even cleft, except in Taphrocerus, where they are connate at base, and simple.

Two groups exist in our fauna, as follows:-

Ântennæ free.
Antennæ received in grooves.

AGRILI. Braches.

## Group I .- Agrili.

The body is always elongated; the prosternum is pointed behind; the anterior and middle coxæ are separated by about the same distance; the anterior margin of the hind coxæ is very distinctly concave, and the prolongation of the abdomen reaches, but does not extend along, the side pieces of the metathorax; there are no grooves on the under surface of the prothorax, for the reception of the antennæ; the tarsi are long or moderate; the scutellum is transverse and acuminate in our genera, which are but two in number: Agrilus is generally diffused; Coræbus is represented by but one species, C. cogitans, in the Atlantic States.

Hind tarsi with first joint scarcely elongated. Hind tarsi with first joint as long as the three following. CORÆBUS.
AGRILUS.

## Group II.-Braches.

I formerly considered this as identical with the European group Traches, but the characters are sufficient to warrant its being placed as distinct. The body is rarely elongated, usually broad and ovate; the middle coxe are a little more distant than the anterior ones, and the mesosternum is very widely divided; the prosternum is very variable in form; the anterior margin of the

hind coxe is but slightly concave, and the prolongation of the abdomen extends a short distance along the side pieces of the metathorax; the sides of the prothorax beneath are deeply grooved near the margin, for the reception of the antennæ; the legs are very contractile, the tibiæ usually sulcate for the reception of the tarsi, which are very short; the seutellum is triangular. Three of the four forms, which, following the example of Lacordaire, I considered as groups of species, have been regarded by others as genera, and may be distinguished as follows:-

Body elongate; scutellum small; prosternum pointed behind.

TAPHROCERUS.

Body ovate; scutellum small; prosternum obtuse behind; tibiæ linear.

Body triangular; scutellum large; prosternum very broad, almost truncate behind; tibiæ dilated. METONIUS.

# FAM. XXXIV.—THROSCIDAE.

Mentum small, narrowed in front; ligula membranous, not prominent; palpi short, 3 jointed.

Maxillæ exposed at the base, with two lobes, inner one

very small; palpi 4-jointed.

Antennæ inserted on the front, received in grooves extending along the inferior margin of the prothorax, 11-jointed; sometimes serrate, sometimes with a loose serrate 3-jointed club.

Head immersed in the thorax to the eyes, which are elliptical; mouth inferior, applied to the prosternum; mandibles

small; labrum prominent.

Prothorax with the side pieces not separate, deeply sulcate along the sternal suture, for the reception of the antennæ; coxal cavities small, open behind, being completed by the mesosternum; prosternum with an anterior rounded lobe protecting the mouth, prolonged behind into a flat process received in the mesosternum.

Mesosternum short, excavated in the middle for the prosternum, completing on each side the anterior coxal cavities: side pieces very transverse, attaining the coxe.

Metasternum with the side pieces very narrow.

Elytra entirely covering the abdomen; epipleuræ distinct. Abdomen with five ventral segments, not connate, though closely connected.

Anterior and middle coxe small, rounded, not prominent, without trochantins, the anterior ones received in cavities formed by the pro- and mesosternum; posterior coxe transverse, contiguous, dilated into a plate partly covering the thighs.

Legs short, contractile; tibiæ slender, with indistinct spurs; tarsi short, 5-jointed, joints 1—4 furnished beneath with long

membranous lobes; claws simple, onychium none.

This family contains only a few small species belonging to two genera, representing different tribes; they are found on flowers, and have been classed with Eucnemidæ by some recent authors, although the totally different construction of the anterior coxal cavities at once separates them. They do not possess the power of leaping, like most species of the next family, and the fixity of the prothorax on the trunk would show that any such act is mechanically impossible.

Species of both genera are found on the Atlantic and Pacific slopes. The tribes and genera are distinguished as follows:—

Antennæ terminated by a 3-jointed club. Antennæ serrate from the third joint outwards. Throscus.
Prapetes.

The name *Trixagus* Kugellann has priority over Throseus, but being applied to a genus composed of the one now under consideration and Byturus, it must be dropped for both.

# FAM. XXXV.—ELATERIDAE.

Mentum small, corneous, quadrate, sometimes rounded in front; ligula without paraglossæ; labial palpi 3-jointed.

Maxillæ exposed at the base, with two lobes, the outer one

sometimes very small; palpi short, 4-jointed.

Antennæ inserted on the front in grooves, or under the margin of the front, 11-jointed, rarely 12-jointed, more or less serrate, sometimes flabellate or pectinate, the outer joints rarely in the first sub-family enlarged, forming a serrate club.

Head frequently retracted, sometimes advanced; usually applied to the prosternum beneath; mandibles small, corneous; labrum distinct in most species, indistinct in the first and second sub-families.

Prothorax with the side pieces not separate; coxal cavities small, rounded, not closed behind by the mesosternum;

prosternum long, usually lobed in front, prolonged behind, forming an acute process moving in the mesosternum.

Mesosternum short, excavated in the middle for the reception of the prosternal process; coxal cavities small, usually angulated externally; side pieces large, epimera reaching the coxæ.

Metasternum usually long, side pieces narrow, epimera

slightly visible.

Elytra covering the abdomen (rarely abbreviated in the female); epipleuræ distinct, extending to the apex; scutellum visible.

Abdomen with five free ventral segments, fifth rounded at the apex (except in the female of Euthysanius), sixth visible

in some of the tribe Plastocerini.

Anterior coxæ small, rounded, without trochantins, contained entirely in the prosternum, in cavities open behind; middle coxæ small, rounded or angulated externally, with a distinct trochantin\* in the second sub-family, but none in the first; posterior coxæ transverse, oblique, contiguous, dilated into a plate covering in part or entirely the thighs (except in Cerophytum).

Legs short, sometimes contractile; tibiæ usually slender, with the spurs very small, or scarcely visible; tarsi 5-jointed, simple or lobed beneath; claws simple, toothed, or pectinated;

onychium none, or very short and bisetose.

A very large family, and including the Eucnemidæ (regarded by many as a distinct family), very sharply defined by the above characters. A few of the species of the first sub-family, and the majority of those of the third, possess the singular power of springing in the air when placed on the back. This is effected by extending the prothorax so as to bring the prosternal spine to the anterior part of the mesosternal cavity, then suddenly relaxing the muscles so that the spine descends violently into the cavity; the force given by this sudden movement causes the base of the elytra to strike the supporting surface, and by their elasticity the whole body is propelled upwards.

It is consequently obvious that the existence of this leaping power is dependent on a loose articulation between the pro- and mesothorax; and, in fact, this is a remarkable character in the majority of the genera of the family, though not apparent in most

<sup>\*</sup> Lacordaire states that no trochantin is visible; but I find it distinct in all the genera examined of genuine Elateridæ, but in no other except Perothops, in which it is merely rudimentary.

genera of the first sub-family. I know, however, from observation, that our small species of Eucnemis actually possess this springing power.

All the species are vegetable feeders; and the larvæ live, some in the earth, others in rotten wood, others prey upon living plants.

Three sub-families may be defined, as follows:-

Labrum indistinct;

Antennæ inserted in grooves; claws not serrate.

Antennæ very approximate; claws serrate.

Labrum distinct.

EUCNEMIDÆ. CEROPHYTIDÆ. ELATERIDÆ.

# Sub-Family I.—EUCNEMIDAE.

The only character separating this from the genuine Elateridæ is found in the insertion of the antennæ upon the front, at the inner extremity of transverse grooves, before which the front is expanded again; the labrum is indistinct; the prosternum is nearly truncate in front, and the head is always deflexed, and applied to the sternum in repose.

The species are rare, and are found under bark, or on leaves of plants. Two tribes are indicated:—

Antennæ moderately distant; maxillary palpi with the last joint acute.

MELASINI.

Antennæ approximate; maxillary palpi with the last joint large, dilated.

EUGNEMINI.

## Tribe I .- MELASINI.

Two genera, of slender form, represented in our Atlantic fauna and in Europe, alone constitute this tribe. They differ in several respects from all other members of the family, and particularly by the large size of the head, so that the eyes are entirely disengaged from the thorax; the mouth is not perfectly applied to the prosternum, as in the next tribe; the prosternum is truncate in front, and its sutures are parallel, not running to the anterior angles of the thorax, as in the other genera of this sub-family; the middle coxe are small, not angulated externally, and without trochantin; the epimera are very transverse.

Tibiæ broad, compressed. Tibiæ slender.

MELASIS. THAROPS.

#### Tribe II.-EUCNEMINI.

Several genera, usually cuneiform, sometimes subcylindrical, and easily recognized by the situation of the antennæ in approxi-

mate grooves, which narrow the clypeus. The middle eoxæ are small, rounded, not angulated externally, and without trochantin; the epimera of the mesothorax are very transverse. Eucnemis possesses a feeble leaping power, which I have not observed in our other genera, although several of them probably may exhibit the same movement. The antennæ are frequently received in grooves, which run sometimes along the under side of the prothorax, sometimes along the prosternal suture; the latter position is assumed among our genera only in Microrhagus, and in that the grooves are quite shallow. The claws have a broad tooth in certain species of Fornax.

The following table expresses the relation of genera:-

Antennal grooves at the margin of the thorax beneath;

Joints of the tarsi 2-4 lobed beneath. Dendrocharis.

Tarsi not lobed beneath;

Antennæ serrate. Eucnemis.
Antennæ filiform. Fornax.

Antennal grooves usually wanting, never marginal;

Prosternal sutures double, excavated.

Microrhagus.

Prosternal sutures single;

Posterior coxal plates gradually but widely dilated internally;

Joints of antennæ 9—11 conspicuously longer. Phlegon.

Joints of antennæ 8—11 conspicuously longer. Epiphanis.

Outer joints of antennæ scarcely longer; inflexed part of prothorax

feebly sulcate in front.

Pesterior coxal plates narrow, not dilated internally.

Hylochares
Posterior coxal plates narrow, very suddenly dilated internally.

ANELASTES.

Phlegon Lap. is synonymous with Euryptychus Lee.; its geographical distribution is remarkable; one species in Madagasear, one in the Atlantic States, and one in California. Anelastes contains two species, one on the Atlantic and another on the Pacific slope. Epiphanis cornuta extends from Sitka to Canada. The other genera are found only in the Atlantic district. Three species which I refer to Nematodes are Euc. atropos Say, Emathion penetrans Lee., and Euc. frontosus Say. At the time that I wrote my revision of Elateridae the genera were very obscurely defined in the books, which will account for my failure to refer these species to the proper genus. The six outer joints of the antennae are slightly enlarged in the male, as in Emathion, and it is quite possible that the latter genus should be entirely suppressed.

# Sub-Family II.—CEROPHYTIDAE.

This sub-family consists of a very small number of species, found under bark, in which the labrum is indistinct, the antennæ closely approximated, but not inserted in grooves contracting the front, as in the preceding sub-family. The middle coxæ have no visible trochantin; the prosternum is lobed in front, the sides are parallel, and the prolongation behind the coxæ is quite short; the lateral margin of the thorax is obsolete in front. The side pieces of the mesosternum in the first tribe are very transverse, in the second less so; the epimera attain both the coxæ and mesosternum, the episterna being cut off from the coxal cavity. The tarsi are rather short, densely pubescent beneath, and the claws are serrate.

The two genera each represent a separate tribe:-

Hind coxe flat, without plates. Hind coxe with the usual plates. CEROPHYTINI.
PEROTHOPINI.

#### Tribe I.—CEROPHYTINI.

Two species of Cerophytum, one European, the other *C. pulsator* Hald., from the Middle States, are contained in this tribe. The antenne are very approximate, situated each side of an elevation, which causes the front to become gibbous; the mandibles are small, and retracted; the last joint of the palpi is dilated, with curved margins; the mouth is protected beneath by the lobe of the prosternum; the hind coxe are entirely flat, and the trochanters are nearly as long as the thighs; the tarsi are somewhat broad, and the fourth joint is prolonged beneath into a short lobe; the claws pectinate, with the tip simple.

The species is very rare, and produces a slight leaping motion by the hind legs moving suddenly upon the edge of the clytra. The antennæ of the male are pectinate, of the female merely serrate. On account of the flat hind coxæ this genus is considered as a separate family by Lacordaire.

#### Tribe II.-PEROTHOPINI.

Perothops mucidus, from the Atlantic States, and P. Witticki Lec., from California, constitute this tribe, which differs from the

preceding by so many important characters, that it might almost be considered as a separate snb-family. The antennæ are feebly serrate, and very approximate, situated in cavities limited posteriorly by oblique ridges; the front is deflexed before the antennæ, and then flattened out; the mandibles are slender and prominent; the palpi with the last joint securiform. The lobe of the prosternum is very short, and protects the mouth partly; it is separated by a transverse groove, almost as in Anclastes. The plate of the hind coxæ is suddenly dilated internally; the trochanters are broad, and of the usual size; the joints 1—4 of the tarsi gradually diminish in length and breadth; the claws are finely pectinate to the apex.

# Sub-Family III.—ELATERIDAE.

The antennæ in this sub-family are widely separated, inserted in small foveæ under the margin of the front, before the eyes. The mouth is usually anterior; the mandibles are small and retracted, except in the last tribe, in which, too, are found the only genera having the labrum connate with the front. The middle coxæ are always angulated externally, with a small, but distinct, trochantin, so that the episterna are not cut off from the coxal cavity. In a few genera of the last tribe the anterior and middle coxæ are conical. The tibiæ are slender in all the genera.

The tribes appear to me to be naturally arranged as follows:-

Antennæ received in deep prosternal grooves.

AGRYPNINI.

Antennæ not received in prosternal grooves;

Meso- and metasternum connate.

CHALCOLEPIDIINI.

Mesosternal suture distinct (side pieces of metathorax narrow in our tribes);

First joint of antennæ very long.

HEMIRHIPINI.

First joint of antennæ moderate;

Apex of mandibles obtuse or emarginate.

Mandibles with the tip slender, prolonged, acute.

ELATERINI.
PLASTOCERINI.

### Tribe I .- AGRYPNINI.

These insects are easily recognized by the antennæ received in grooves excavated along the prosternal sutures; the mandibles are emarginate at tip, or toothed; the front flat or coneave; the mesosternum not, or but slightly, protuberant; the coxal plates

are gradually, but slightly, dilated internally; the tarsi in our genera have the joints slightly inflated beneath, not furnished with membranous lobes; the prosternal lobe is large; the antennæ are serrate in our genera. The species are found under bark of dead trees.

Antennal grooves occupying the whole, or nearly the whole, of the prosternal suture;

Third joint of the antennæ smaller or narrower than the fourth.

AGRYPNUS.

Third joint of the antennæ equal to, or larger, than the fourth.

Adelocera. Lacon.

Antennal grooves much abbreviated behind.

Of Agrypnus two species are found in Texas; Adelocera is found in our whole territory, and Lacon in the Southern States and Kansas.

### Tribe II.—CHALCOLEPIDIINI.

The genus Chalcolepidius is represented by four species, one (C. viridipilis) found in the Atlantic States, two in Arizona, and one in southern California. They are very large insects, clothed with depressed scales; the mesosternum is protuberant, and entirely connate with the metasternum, the suture being obliterated. The antennæ are pectinate in the male of C. viridipilis and smaragdinus. The genus Alaus is represented by three species in the Atlantic district; it is commonly separated widely from Chalcolepidius, but the protuberant mesosternum, closely connected with the metasternum, with scarcely a trace of suture, indicates its affinity with that genus. The form of body, too, is not unlike. In both genera the coxal plates are gradually dilated inwards, and strongly toothed at the insertion of the thighs; the mandibles have the tip entire, but not prolonged; the front is concave, not margined behind the labrum, but deflexed; the tarsi are not lobed beneath, but very densely pubescent, and the claws are simple.

Scutellum obcordate; margin of elytra obsolete in front. Chalcolepidus. Scutellum oval; elytra strongly margined. Alaus.

### Tribe III.-IIEMIRIHPINI.

In this tribe, represented only by *Hemirhipus fascicularis*, the front is concave, margined anteriorly; the mandibles are acute at

the tip; the antennæ (flabellate and 12-jointed in Hemirhipus) have the first joint very long, and the others small and equal in size; the prosternal lobe is large, the sutures are concave outwards and double; the coxal plates are equally broad at the inner and outer portion, with a tooth at the origin of the thighs; the tarsi are not lobed beneath, but densely clothed with fine pubescence.

The species extends from New York to Brazil, is of large size, densely clothed with short brown pubescence; black, with the elytra muddy yellow, varied with small dusky spots.

#### Tribe IV .- ELATERINI.

This tribe comprises the great bulk of the species, and contains many genera differing in various peculiarities of structure, but all agreeing in having the antennæ not received in prosternal grooves, the mesosternal suture distinct, and the side pieces of the metathorax narrow. The mandibles are short, and never extend far beyond the labrum; they are usually emarginate, rarely subacute, but not much prolonged at the apex; in the latter case, however, the metasternum is not acute in front, as in the next tribe.

Sub-tribes may be defined as follows:--

Coxal plates suddenly dilated inwards. Coxal plates gradually dilated inwards. ELATERINI. CORYMBITINI.

## Sub-Tribe 1.—Elaterini (genuini).

No other character can be given to separate this sub-tribe from the next but the form of the plates of the hind coxe, which are suddenly dilated about the middle, with the outer part much narrower than the inner; there is always a strong tooth at the insertion of the thighs; the front is margined anteriorly in all of our groups except the last; the prosternum is always lobed in front; the prosternal sutures are double, except in the first two groups, where they are entirely simple; the mandibles emarginate or toothed at the tip; the tarsi are variable in form, but the claws are never serrate.

The following groups are represented in our fauna:-

Margin of the front elevated behind the labrum;

Prosternal spine truncate behind; scutellum cordiform. Cardiophori. Prosternal spine acute; scutellum oval;

Prosternum broad, sutures single, convex outwards. Cryptohypni.

Prosternum moderate, sutures double, straight or concave;

Tarsi not lobed beneath. ELATERES. Third joint of tarsi lobed. Physorhini. Fourth joint of tarsi lobed. MONOCREPIDII.

LUDII.

BLAUTA.

ELATER.

Second and third joints of tarsi with long lobes. DICREPIDII.

Margin of the front not elevated.

## Group I .- Cardiophori.

The species are usually small, and convex in form, remarkably distinguished by the prosternal spine being truncate behind, and fitting like a wedge into the mesosternum; the scutellum is cordiform; the front is margined, but not concave; the coxal plates are suddenly dilated inwards.

Several species of Cardiophorus represent this group in every part of our country.

# Group II .- Cryptohypni.

This group contains only small species, and is easily known by the margined front, the suddenly dilated eoxal plates, and the broad prosternum, with the sutures single, and convex outwards; the coxal plates are scarcely toothed at the insertion of the thighs; the tarsi are filiform.

Cryptohypnus is generally diffused; Œdostethus contains but one species from the Atlantic district.

Claws simple; tarsi moderate, clothed with stiff hairs. CRYPTOHYPNUS. Claws with a tooth at the middle; tarsi long, pubescent. CDOSTETHUS.

## Group III .- Elateres.

In this group are species having the front convex and margined; the thorax always narrowed in front; the prosternum not very wide, with the sutures distinctly double, and sometimes exeavated in front, straight or concave outwards; the posterior coxal plates narrow externally, suddenly dilated internally, and toothed at the origin of the thighs; the tarsi not dilated or lobed (the anterior ones in Blanta very slightly so), and the claws entire.

Our genera are:-

Prosternal sutures excavated in front;

Tarsi spongy beneath, the anterior ones slightly lobed. Tarsi ciliate beneath, entirely simple.

Prosternal sutures not excavated in front; Third joint of antennæ longer than the second. Drasterius. Second and third joints of antennæ small, equal. MEGAPENTHES. Drasterius is united by Duval with Cryptohypnus, but the narrower prosternum, with double sutures, distinguish it very strongly from that genus. Our species (Elater dorsalis Say, Ei. elegans Fabr., M. amabilis Lee., M. comis Lee., and M. livens Lee.) were included by me in Monocrepidius, but are distributed, with some new ones, by Candéze, between the genus now under consideration and Æolus.

The species of Megapenthes were placed in Elater by me, but very properly separated by Candéze. There is not an entire agreement between them in the form of the coxal plates; thus, the outer portion is much narrower in *M. stigmosus* than in the nearly allied *M. caprella*. I would also include in this genus *El. limbalis* Herbst, though the coxal plates are much less suddenly dilated internally; hardly more so, in fact, than in *Corymbites æthiops*.

# Group IV .- Physorhini.

The small number of species constituting this group have the third joint of the tarsi furnished beneath with a membranous lobe, the fourth being small, and received upon the fourth. The front is very convex, its anterior margin rounded; the posterior coxal plates very narrow externally, suddenly dilated and strongly toothed internally; the claws are simple; the mesosternum always oblique; the prosternal sutures double, and in our genera excavated in front.

Coxal plates very suddenly, almost rectangularly, dufated; Second and third joints of antennæ together equal to the fourth.

CREPIDOTRITUS.

Third joint equal, or nearly equal, to the fourth. Brachycrepis.

Coxal plates obliquely, but very strongly, dilated; second and third joints of antennæ together nearly equal to the fourth.

Anchastus.

To Crepidotritus belong *Cryptohypnus cinereipennis* Mann. (Anchastus recedens Lec.) and *C. tantillus* Mann., both from California. To Brachyerepis I would refer, besides the type *B. bicarinatus* Lec., also *Elater binus* Say.; the latter may, however, constitute a new genus, as the joints of the antennæ are earinate on the middle of the broad surface.

# Group V.—Monocrepidii.

In this group the front is convex, margined in front; the first joint of the antennæ is longer than usual; the prosternal sutures are double, straight or concave, and scarcely excavated in front; the coxal plates are suddenly dilated internally, with the angle rounded, as in Drasterius, and a tooth at the origin of the thighs; the fourth joint of the tarsi is obliquely prolonged into a membranous lobe.

The genera Æolus and Heteroderes, as adopted by Candéze, appear to be untenable, and heterogeneous, as already observed by Duval; I therefore continue to refer all of our species to Monocrepidius, removing to Drasterius those with simple tarsi, which were formerly included by me in the same genus.

## Group VI.-Dicrepidii.

The strongly margined front, the prosternal sutures, excavated in front, and concave outwards, and the tarsi with lobes beneath the second and third joints, will distinguish this group. The species are elongate, brown, hairy insects, with strongly serrate antennæ, sometimes even pectinate in the males. The coxal plates are strongly dilated inwards, and toothed. They are found in the Southern States and Texas, and belong to two genera:—

Mesosternum horizontal; anterior part of front with two crests, uniting above with the frontal margin.

Digrephius.

Mesosternum oblique; front not crested.

Ischnodorus.

To the latter genus belong *Elater soleatus* Say, *Dicrepidius ferreus* Lec., and *D. simplex* Lec.

### Group VII .- Ludii.

This group has the front convex, but not margined behind the labrum; the prosternal sutures concave outwards; the tarsi simple, pubescent beneath, and the posterior coxal plates less suddenly dilated internally, but still distinctly angulated at the middle of the hind margin, and strongly toothed at the insertion of the thighs. The species are usually of large, though one species, which I place in Ludius, is of moderate size; it is the Oregon L. tartareus, formerly included by me in Elater.

Our genera are three, thus distinguished:-

Angle of the hind coxe acute, prominent;
Mesosternum declivous, not prominent.
Mesosternum protuberant.
Angle of the hind coxe obtuse, broadly rounded.

Ludius.
Orthostethus.
Crigmes.

MELANACTES.

To Orthostethus Lac. belongs Aphanobius infuscatus Germ., a large brown species found in the Southern States.

## Sub-Tribe 2.-Corymbitini.

In this sub-tribe the coxal plates are gradually or sometimes scarcely dilated inwards, frequently not toothed over the insertion of the thighs, with the hind margin nearly rectilinear. In other characters there are found great differences between the groups; the prosternal sutures are frequently straight and simple, and the prosternal lobe is sometimes entirely wanting. The claws are pectinate in certain genera.

The following groups are represented in our fauna:-

Front convex; mouth inferior.

Front flattened, margined; mouth anterior;

Claws pectinate.

Claws simple.

Front flattened, not margined; mouth anterior;

Mesosternum declivous.

Corymbites.

Mesosternum declivous.

Mesosternum protuberant.

## Group I .- Agriotes.

This group, composed of species of moderate or small size, is distinguished by the convex front, the edge of which is higher than the labrum; the mouth is situated on the inferior surface of the head, and is applied to the prosternum in repose; the latter is lobed in front; the sutures are double, either concave outwards or nearly straight, somewhat excavated in front; the antennæ are slender, scarcely serrate, and the first joint is a little longer than usual; the eoxal plates are but slightly broader internally, although sometimes almost suddenly dilated; the tooth at the insertion of the thighs is large.

Our genera are:-

Front truncate, not margined behind the labrum, although higher than it; claws simple;

Margin of prothorax deflexed in front.

Margin of prothorax straight.

Agriotes.

Dolopius.

Front margined;

Claws and tarsi simple. Betarmon.
Claws pectinate, tarsi slightly lobed. Adrastis.

To Dolopius, as here defined, belong D. macer Lec., pauper Lec., and subustus Lec.; to Betarmon belongs only Elater bige-

minatus Randall. The genus Sericosomus, placed by European authors near Dolopius, appears to me more nearly allied to Corymbites.

### Group II .- Melanoti.

In this group are contained species of moderate or small size, having the front moderately convex, margined anteriorly; the mouth anterior; the antennæ serrate, with the first joint of the usual size; the prosternum is lobed in front; the sutures are double, and concave outwards; the coxal plates are gradually dilated inwards, and toothed at the origin of the thighs; the tarsi are not lobed beneath, and the claws are strongly pectinate.

Our species are numerous, and all belong to Melanotus, for which I unfortunately adopted the more recent name *Cratonychus* in my revision of the Elateridæ of the United States.

## Group III .- Athoi.

Here are to be placed all species having the front margined; the mouth anterior; the coxal plates narrow, gradually dilated inwards, scarcely toothed; the claws simple; and the prosternal sutures nearly straight, double, though rarely excavated in front; the first joint of the antennæ is moderate. The front is sometimes not only margined, but deeply concave, by the margin being reflexed; in some species of Limonius the margin is almost obsolete at the middle, establishing thus a transition to the group Corymbites; the prosternal lobe is sometimes obsolete, and the middle coxæ are in Campylus very approximate, so that the metasternum becomes acute in front. The tarsi have sometimes the second and third joints slightly lobed beneath.

The body is usually slender, and rarely (Pityobius) of large size. Our genera are:—

Tarsi with the first joint scarcely longer than the second. Tarsi with the first joint elongated;

Limonius.

Prosternal lobe very short;

Metasternum acute; antennæ 11-jointed. Metasternum obtuse; antennæ 12-jointed.

Campylus.
Pityobius.

Prosternal lobe long.

ATHOUS.

Gambrinus Lec. is not sufficiently distinct from Limonius, nor Pedetes from Athous. The males of Pityobius are remarkable for the antennæ having on each side a row of branches. Two species are known to me: *P. anguinus*, from the Atlantic States, of a dull black color, with short brown hair, with but single branches proceeding from beyond the middle of the joints of the antennæ 4—11 each side; and *P. Murrayi* Lec., from California, of a more shining black color, much less hairy, with one inner and two outer basal branches from the joints of the antennæ.

## Group IV .- Corymbites.

This group is so closely connected with the last by intermediate forms, that its separation may be considered to be rather a matter of convenience than of natural difference; thus, the discussion of the question whether *Limonius vagus* and *estriatus* Lec., which form the new genus Eanus *Lec.*, and *L. dubitans*, which forms Nothodes, should enter this or the preceding group, is a matter of but small consequence.

The front is not margined behind the labrum, and is usually slightly concave; the mouth is anterior, though somewhat deflexed in Sericosomus (which differs from the group Agriotes in this respect, as well as by the less convex front, and shorter first joint of the antennæ); the prosternum is either lobed or truncate in front; the sutures are double, not excavated in front, except in Bladus and Nothodes, usually nearly straight; the mesosternum is not protuberant, sometimes acute in front; the coxal plates are gradually dilated inwards, sometimes toothed at the insertion of the thighs.

Our genera are:-

Thorax without luminous vesicles;

Tarsi filiform:

Prosternum not lobed in front:

Prosternal sutures straight; third joint of antennæ small. Bladus. Prosternal sutures concave outwards; third joint of antennæ equal to fourth. Estodes.

Prosternum with a short lobe; front suddenly deflexed at tip, but not margined at the middle;

Elytra not striate; prosternal sutures not excavated. Enus. Elytra striate; prosternal sutures excavated in front. Nothodes.

Prosternum with a long lobe;

Front convex; coxal plates scarcely narrower externally.

Sericosomus.

Front usually more or less flattened; coxal plates narrow externally.

Corymsites.

Tarsi with the second and third joints lobed beneath. Thorax with luminous vesicles.

Asaphes.
Pyrophorus.

The genus Corymbites contains a great number of species, and, as is usual in large genera, is quite polymorphous; some of the species (C. æthiops and C. maurus) have the coxal plates almost as suddenly dilated internally as in Crigmus, of the group Ludii of the preceding sub-tribe. Some of the species are very narrow, resembling Athous and Campylus, others very stout. They may be divided into many groups, which are natural, but not entitled to rank as genera.

# Group V.-Melanactes.

This group is represented in our fauna by the genus Melanaetes alone, which, while confined to temperate North America, is diffused on both sides of the continent. The species are large shining black insects, found under stones. They are distinguished from other groups having the coxal plates gradually dilated inwards, by the horizontal protuberant mesosternum, which is not connate, as in Chalcolepidiini, but separated by a distinct suture The front is depressed at the middle, from the metasternum. and not margined; the mandibles are toothed near the tip; the prosternum is furnished with a long lobe in front; the sutures are double, nearly straight, slightly excavated in front; the coxal plates are gradually dilated inwards and toothed at the origin of the thighs; the tarsi are not lobed, but very densely pubescent beneath, with the joints 1-4 gradually decreasing in length; the claws are simple.

### Tribe V.-PLASTOCERINI.

In this tribe I comprise certain genera which recede from the true Elaters to approach the Cebrionidæ; thus, the sixth ventral segment is usually slightly visible, and in the female of Euthysanius becomes equal to the other segments. The same insect is further remarkable for the elytra being very short, and the wings wanting; in the female of Plastocerus the elytra are somewhat dehiscent, but the wings are present.

The following characters distinguish this tribe: The mandibles are curved and slender at the tip, and project more than in other Elateridæ; the labrum is more closely connected with the front; the prosternum is truncate in front, not at all lobed, and its lateral sutures are straight, slightly oblique, not excavated in front;

the mesosternum declivous; the middle coxæ more conical and prominent than usual, nearly contiguous; the metasternum is very acute in front; the coxal plates are dilated inwards, but not suddenly, and differ slightly in form in the respective genera; they are toothed at the origin of the thighs. The tarsi are simple, and pubescent beneath; the claws are simple; the tibial spurs are more developed than in other tribes.

Two natural groups are obvious:-

Front margined; mandibles very prominent.
Front depressed; mandibles not very prominent.

Aphrici. Plastoceri.

## Group I .- Aphrici.

Aphricus californicus, a small species having the appearance of a slender Cardiophorus, is the only member of this group known. The mandibles are long and slender, and project so as to leave an open space between them and the front which is margined, and projects over the labrum; the antennæ are moderately serrate; the prosternum is very slightly lobed; the sutures are single, and not exeavated; the middle coxæ are prominent; the metasternum is obtuse in front; the coxal plates are scarcely toothed at the insertion of the thighs; the first joint of the tarsi is not longer than the second; the sixth ventral segment is not visible.

## Group II.-Plastoceri.

The mandibles are thick at the base, toothed at the middle, slender and curved at the tip, but embrace more or less closely the labrum, which is on the same plane with the depressed front, and closely connected with it, almost as in certain Cebrionidæ. The antennæ are long and serrate in Aplastus; in the other genera short, and pectinate with long branches in the males, in the females serrate, and slightly pectinate; the prosternum is slightly lobed in Aplastus, not at all lobed in the other genera; the sutures are double, slightly oblique, and not excavated; the middle coxæ are prominent, with the mesosternum aente in front; the coxal plates are gradually and sometimes strongly dilated inwards, and toothed at the origin of the thighs; the first joint of the tarsi is as long as the two following united; the sixth ventral segment projects beyond the fifth, which is round at the apex. In the female of Euthysanius, however, the clytra are short, the

wings wanting, and the abdomen greatly elongated; the hind coxæ also become so prominent, as to leave the genuine first ventral segment (invisible in all other Elateridæ) free; following this are the usual five equal to each other, then the sixth, equal to the fifth, but rounded at tip, and followed by a prominent obtusely triangular seventh (really the eighth) ventral segment; of these, all but the last two are margined behind with membrane.

Antennæ long, serrate, 11-jointed. Antennæ short, in the males pectinate; Antennæ 11-jointed. Antennæ 12-jointed.

APLASTUS.

PLASTOCERUS. EUTHYSANIUS.

# FAM. XXXVI.—CEBRIONIDAE.

Mentum corneous, quadrate; ligula distinct, without paraglossæ.

Maxillæ exposed at base, with two lobes (in our genera). Antennæ inserted under the frontal margin, 11-jointed, serrate.

Head not deflexed; eyes convex rounded.

Labrum closely connected with the front, slightly emarginate, transverse; mandibles (in our genera) slender, long and prominent, leaving an open space between them and the mouth.

Prothorax with the side pieces not separate; coxal cavities large, rounded, open behind; prosternum very short, prolonged behind into a spine.

Mesosternum short, oblique, excavated to receive the pro-

sternal spine; side pieces attaining the coxæ.

Metasternum short, pointed in front; side pieces narrow

in Cebrio, wide in Scaptolenus, epimera visible.

Elytra covering the abdomen in the males, sometimes shorter in the females; epipleuræ very narrow behind; wings wanting in the females.

Abdomen with six free ventral segments.

Anterior coxæ large, globose, without trochantin; middle coxe rounded, with a small trochantin; hind coxe transverse, dilated into a plate, partly protecting the thighs.

Legs sub-fossorial; anterior tibiæ more or less dilated or expanded at the apex; terminal spurs large; tarsi 5-jointed, not lobed (in our genera); claws simple, onychium none.

A family of small extent; three genera of the tribe of genuine Cebrionidæ are represented in our fauna; Cebrio, in the Southern States; Anachilus in Florida; Scaptolenus in Texas; they are found flying about at night. The females are found at the entrance of holes which they exeavate in the ground.

Labrum entirely connate with the front.

Labrum separated by suture from the front;

Anterior tibiæ entire.

Anterior tibiæ emarginate externally.

Anachilus.

CEBRIO. SCAPTOLENUS.

The principal differences between this and the preceding family is in the greater number (six) of ventral segments, the well developed tibial spurs, the expansion of the anterior tibiae at the apex, and the close connection between the front and the labrum. By the intermediate forms of the group Plastoceri, of the previous family, all the differences, except those of the anterior tibiae, become evanescent; and I place the Cebrionidae as a distinct family, only in deference to the views of the most distinguished foreign authorities.

# FAM. XXXVII.—RHIPICERIDAE.

Mentum quadrate, corneous; ligula small, not prominent; palpi 3-jointed.

Maxilla exposed at the base; usually with but one lobe;

palpi 4-jointed.

Antenne inserted before and inside of the eyes, under ridges, 11-jointed (in our genera), serrate in the females, frequently flabellate in the males.

Head prominent; eyes round; epistoma not distinct; labrum indistinct; mandibles large, stout and prominent in Sandalus,

small in Zenoa.

Prothorax with the side pieces not separate; coxal cavities large, transverse, open behind; prosternum not prolonged.

Mesosternum short, oblique, flat; side pieces attaining the

coxæ.

Metasternum short in Sandalus, moderate in Zenoa; side pieces wide in the first, narrow in the second; epimera large in Sandalus, not visible in Zenoa.

Elytra covering the abdomen; epipleuræ extending to the

apex.

Abdomen with five (in our genera) free ventral segments.
Anterior and middle coxe conical, prominent, the former with large trochantins; posterior coxe transverse, dilated into a small plate partly covering the thighs.

Legs moderate, tibiæ with small terminal spurs; tarsi 5-

jointed; claws simple; onychium long, hairy.

A family containing a small number of species, found on plants; Sandalus especially affecting various cedars; it is represented both in the Atlantic and Pacific districts; Zenoa contains but one species in the Atlantic district.

Tarsi not lobed; antennæ moderately long, serrate. Zenoa. Tarsi lobed; antennæ short (Q serrate, & flabellate). Sandalus.

These two genera indicate different tribes, distinguished as above stated, by the form of the side pieces of the metathorax.

# FAM. XXXVIII.—SCHIZOPODIDAE.

Mentum quadrate, corneous; ligula short, transverse, coriaceous; palpi 3-jointed.

Maxillæ exposed at base, lobes ----? palpi 4-jointed,

short, cylindrical.

Antennae inserted immediately in front of the eyes, under a slight prominence; 11-jointed, serrate from the fifth joint outwards.

Head deflexed, closely affixed to the prothorax, eyes elliptical; epistoma not distinct from the front; labrum emarginate; mandibles stout, emarginate, not prominent.

Prothorax with the side pieces not separate; coxal cavities rounded, almost confluent with the middle coxal cavities;

prosternum slightly prolonged, truncate at tip.

Mesosternum short, oblique; epimera attaining the coxæ. Metasternum short, side pieces wide; epimera slightly visible.

Elytra covering the abdomen; epipleuræ obsolete behind. Abdomen with the first and second ventral segments connate; the fifth emarginate, sixth deeply emarginate, seventh contained in the emargination of the sixth, slightly visible.

Anterior coxæ conical, without trochantin; middle coxæ rounded, without trochantin; posterior coxæ transverse, somewhat separated, extending to the margin of the body, dilated into a plate partly covering the thighs.

Legs moderate, slender; anterior tibiæ with one short apical

spur; other spurs obsolete; tarsi 5-jointed, joints 1—3 spongy beneath at the apex and slightly lobed, fourth with two long membranous lobes; last joint as long as the three preceding; claws strongly toothed near the apex; onychium none.

This family contains but the single species, *Schizopus lætus* Lec., an insect found in Arizona, resembling in form a Galleruca; it is of a metallic green color, coarsely punctured with red elytra, and is nearly six-tenths of an inch long.

# FAM. XXXIX.—DASCYLLIDAE.

Mentum quadrate, corneous; ligula large, membranous, frequently divided into narrow lobes; palpi 3-jointed.

Maxillæ exposed at base, with two lobes, variable in form, but not armed with hooks, except in Eucinetus; palpi 4-

jointed.

Antennæ distant, inserted immediately in front of the eyes, under a slight ridge, 11-jointed, more or less serrate, rarely pectinate.

Head sometimes prominent, but usually deflexed, with the epistoma sometimes distinct from the front; mandibles not

prominent.

Prothorax with the side pieces not separate; eoxal cavities transverse, widely open behind; prosternum sometimes extending behind the eoxæ, but usually not.

Mesosternum small, sometimes exeavated, sometimes oblique and flat, frequently very narrow; coxal cavities transverse, exeavated behind; epimera large, attaining the coxæ.

Metasternum moderate, side pieces tolerably wide; epimera

usually visible.

Elytra covering the abdomen; epipleuræ extending to the apex.

Abdomen with five free segments, the fifth rounded at tip. Anterior coxe transverse, frequently prominent; in the first sub-family, with large trochantin, in the second without; middle coxe smaller, sub-transverse, rarely with, usually without trochantin; posterior coxe transverse, nearly contiguous, dilated into a plate partly covering the thighs.

Legs short, tibic slender, with small, and sometimes obsolete terminal spurs; tarsi 5-jointed, frequently with membranous lobes beneath; claws simple or pectinate; onychium (in some genera) very short, with two terminal bristles,

sometimes wanting.

A family which, although of small size, contains genera widely differing in many of their characters; they all live on plants usually near water.

They naturally divide into two sub-families:—

Anterior coxæ with distinct trochantin. Anterior coxæ without trochantin.

DASCYLLIDÆ. HELODIDÆ.

# Sub-Family I.—DASCYLLIDAE (genuini).

The presence of an anterior trochantin will readily distinguish the genera of this sub-family, the species of which are of larger size than those of the following sub-family. The anterior coxæ are very transverse, rarely prominent. The prosternum is always quite well developed in front of the coxæ, and is usually visible between them. The spurs of the tibiæ are distinct.

The genera may be arranged in tribes as follows:—

Prosternum prolonged, entering the mesosternum. Prosternum not prolonged.

Macropogonini.

Dascyllini.

## Tribe I.-MACROPOGONINI.

The head is convex, without clypeal suture; the antennæ are scarcely serrate; the prosternum is flat, with distinct side margins converging behind; the mesosternum is emarginate and receives the tip of the prosternum; the plates of the hind coxæ are very narrow; the second and third joints of the tarsi are slightly lobed beneath, and the fourth joint has two long narrow lobes; the claws are simple, and the onychium is wanting.

Two genera are recognized by Motschulsky.

Antennæ with the second and third joints small. EURYPOGON.

Antennæ with the second, third, and fourth joints small. Macropogon.

Eurypogon nigra (Ochina nigra Mels.) is the only species of the genus known; it is found in the Atlantic States on plants. Macropogon occurs in California and Oregon.

Motschulsky has placed these genera in Elateridæ, from which the large trochantins and different form of the anterior coxæ at once distinguish them.

### Tribe II. - DASCYLLINI.

The clypeal suture is sometimes visible, and sometimes behind the labrum may be seen a membranous epistoma. The prosternum does not articulate with the mesosternum; the plates of the hind coxe are gradually dilated internally; the onychium is small, bisetose, and sometimes wanting. Our genera are:—

Tarsi not lobed beneath;

Claws simple; antennæ strongly serrate.
Claws simple; antennæ nearly filiform.
Claws serrate; antennæ nearly filiform.
Claws serrate; antennæ nearly filiform.
Claws serrate; antennæ nearly filiform.
Codontonyx.
Tarsi with membranous lobes beneath;
Tarsi dilated; first joint not elongated.
Dascyllus.
Tarsi slender; first joint longer.
Anorus.

Stenocolus and Anorus are found only in California; Dascyllus on both sides of the continent; Anchytarsus and Odontonyx in the Atlantic States; Stenocolus is remarkable for the middle coxæ having a large trochantin.

## Sub-Family II.—HELODIDAE.

This sub-family contains a number of small species found on plants in moist situations, and readily recognized by the anterior and middle coxæ having no trochantin. They are divided into four tribes, the first of which resembles in many points the tribe Chelonariini of Byrrhidæ, while the second recalls the sub-family Psephenidæ of the Parnidæ.

Tarsi with fourth joint very small, third lobed beneath. PTILODACTYLINI. Tarsi with fourth joint not smaller than the third;

Posterior coxe moderate:

Prosternum distinct before and between the coxæ.

Prosternum very short before the coxæ.

Posterior coxæ very large.

EUBRIINI.

EUCINETINI.

## Tribe I.-PTILODACTVLINI.

Represented in the Atlantic district by three species of Ptilo-dactyla; they are oval, brown, finely pubescent insects of convex form; the antennæ of the males have arising from the base of the joints 4—10 a slender cylindrical appendage, equal in length to the joint itself; the clypeal suture is very distinct, and the front riscs

slightly above the epistoma; the labial palpi are normal in form. The prosternum is quite distinct before the coxe, but not visible between them. The middle coxe are not covered by the front coxe, which are conical and prominent, and the hind coxal plates are suddenly dilated internally; the tibiæ are cylindrical, with long slender spurs; the tarsi are rather short, the second joint slightly, the third broadly lobed beneath, the fourth small, the fifth a little longer than the third, with the claws broadly toothed or appendiculate. Fifth ventral segment emarginate.

### Tribe II.-EUBRIINI.

Broadly ovate convex, finely punctured and pubescent insects found on plants near water. The head is deflexed as in the other tribes, but the antennæ are more approximate, contracting the front which forms a narrow beak; I do not observe any frontal suture; the maxillary palpi are slender, and much elongated; the labial palpi are short; the prosternum is very well developed in front of the coxæ, and is quite visible between them, and pointed behind, though not prolonged; the mesosternum is nearly square, The anterior coxe are transverse, and not somewhat concave. very prominent; the middle coxe are distant; the plates of the hind coxe are very narrow, slightly dilated internally. the tibiæ obsolete, tarsi filiform, with the fourth joint slightly smaller than the third, fifth as long as the three preceding united. The fifth ventral segment is rounded at tip; claws dilated at the base.

There is a small fissure at the front margin of the anterior coxe, which produces the appearance of a trochantin, but under a very high lens, it is seen that this fissure does not extend across the coxa, so as to separate the outer portion.

Our species are found only in the Atlantic States, and belong to the genus Ectopria Lec. It differs from the European Eubria by the mesosternum being oblique and slightly concave, instead of flat and emarginate in front as in that genus. Eurea Lec., founded upon Eubria nervosa Mels., must be suppressed into Ectopria. The typical specimen was in very bad condition and the small lobes which appeared to exist under the tarsi are not visible in well-preserved individuals.

### Tribe HI.—HELODINI.

Sometimes elongate, usually oval species, of varied color, covered with a very deciduous pubescence; the clypeal suture is not visible; the last joint of the labial palpi is frequently inserted at the side of the preceding joint and not at the apex as in other insects. The thorax is usually very small; the prosternum in front of the coxe is very short, and not visible between them. The anterior coxe are long, oblique, and conical, and lap over a portion of the middle coxe; the hind coxal plates are strongly dilated internally. Tibiæ sulcate externally, usually with small spurs, in Seyrtes with longer ones. Tarsi with the fourth joint larger than the third, bilobed; claws simple. The antennæ of the male of Prionocyphon discoidea have the joints 4—10 furnished on each size with a cylindrical appendage longer than the joint. The fifth ventral segment is rounded at tip.

Our genera, all having the fifth joint of the tarsi short, are:

Labial palpi with the third joint inserted on the side of the second;

Hind legs large, saltatorial.

SCYRTES.

Hind legs moderate;

First joint of antennæ much dilated.

PRIONOCYPHON.

First joint of antennæ moderate.

HELODES.

Labial palpi with the third joint at the end of the second. CYPHON.

In Helodes the hind coxe are suddenly dilated internally, and in our species, the head is covered by the thorax, which is rounded in front; these species form Sacodes Lec., which must be suppressed. In Prionocyphon and Cyphon the hind coxe are strongly but gradually dilated internally. Seyrtes and Cyphon occur on both sides of the continent; the other two genera, thus far only on the Atlantic slope.

### Tribe IV.—EUCINETINI.

Eucinetus, a genus of wide distribution, composes this tribe; the mouth is prolonged; the head deflexed, without distinct clypeal suture; the prosternum is exceedingly short in front of the coxe, which are long and conical; the middle coxe are large and flat; the posterior ones are dilated into immense oblique plates, concealing the hind legs in repose; the metasternum is consequently short, and rhomboidal; the tibial spurs are distinct, the tarsi somewhat clongated, filiform, joints 1—4 decreasing in

length; claws simple. Ventral segments six. The body is elongate oval, convex, brown or black, pubescent.

The internal lobe of the maxillæ is armed with a terminal hook.

# FAM. XL.—LAMPYRIDAE.

Mentum quadrate, moderate in size, frequently formed of two pieces separated by a transverse suture; ligula not corneous, prominent, without paraglossæ; palpi 3-jointed.

Maxillæ exposed at the base, with two ciliate lobes, the internal of which is sometimes obsolete; palpi 4-jointed.

Antennæ serrate, rarely pectinate or flabellate, usually 11-jointed, inserted on the front, more or less distant, according to the sub-family.

Head sometimes prominent, sometimes protected by the

thorax; eyes rounded.

Prothorax with the side pieces not separate; coxal cavities large, transverse; prothoracic spiracle usually visible; prosternum very short.

Mesosternum triangular, not excavated; side pieces large,

attaining the coxæ.

Metasternum with side pieces large; epimera visible.

Elytra never embracing strongly the sides of the abdomen, sometimes short, sometimes (in the female of foreign genera) entirely wanting.

Abdomen with seven or eight free ventral segments.

Anterior coxæ contiguous, conical, with large trochantin; middle coxæ oblique, contiguous (except in Lycini), conical, with or without trochantin; posterior coxæ transverse, pro-

minent, internally forming a conical protuberance.

Legs slender, or compressed, long or moderate; trochanter in the axis of the thigh; tibiæ with short or indistinct terminal spurs; tarsi 5-jointed, not lobed beneath, uniformly pubescent in the first, spongy pubescent in the second subfamily, fourth joint more or less bilobed; claws variable in form.

Insects of moderate, or small size, of elongate form, and soft consistence, found on plants. Many of the species of the second tribe of the first sub-family possess the remarkable power of emitting light, and are hence called fireflies.

Two sub-families may be separated:—

Side pieces of metathorax slightly curved internally. Side pieces of metathorax sinuate internally.

LAMPYRIDÆ.
TELEPHORIDÆ.

# Sub-Family I.—LAMPYRIDAE (genuini).

The head is usually immersed in the thorax, so as to conceal the gular portion; the antennæ are generally closely approximate, and the labrum is nearly always quite distinct. The side pieces of the metathorax are wide; the epimera are large, and the inner outline of the episterna is straight or slightly convex.

Three tribes are represented in our fauna:-

Antennæ approximate;

Middle coxæ separate; head uncovered.

Middle coxe contiguous; head covered by thorax.

Antennæ distant; head prominent.

LYCINI.
LAMPYRINI.
PHENGODINI.

### Tribe I.-LYCINI.

In this tribe we have species in which the sides of the thorax are commonly foliaceous, but the head, though small, deeply immersed in the thorax, and deflexed, is not covered by a prolongation of the thorax; the antennæ are approximate, much compressed and inserted upon the front, or at the base of a more or less distinct beak. The mandibles are small and simple; the maxillary palpitolerably long and dilated. The side pieces of the metathorax are very wide, and the inner margin is slightly curved. The trochanters are situated entirely in the axis of the thighs, and are generally longer than in the other sub-families. Our species represent only one tribe, Lycini, distinguished by the deflexed head, distinct labrum, and distant middle coxæ.

Our genera are :-

Antennæ in front of the eyes, at the base of the beak;

Head prolonged into a long beak. Head with a short broad beak. Lycus. Dictyopterus.

Antennæ between the eyes;

Head with a very short beak; (thorax carinate).

CALOPTERON.

Head without beak;

Autennæ flabellate, thorax carinate.

CAENIA. Eros.

Antennæ serrate, thorax not carinate.

### Tribe II.—LAMPYRINI.

We here have species in which the head is deeply immersed in the thorax, and protected by the hood-like thorax; the antennæ are approximate and inserted upon the front; the eyes usually very large; the mandibles very slender, not toothed; palpi elongated, compressed: the middle coxæ are contiguous, and the trochanters are less elongated than in the first sub-family. The side pieces of the metathorax are very wide, and the inner margin is straight, or slightly curved. The last ventral segments of the abdomen are provided with a phosphorescent apparatus in the greater number of the species.

Two sub-tribes exist as follows:-

Head entirely covered by the prothorax. Head partially covered by the prothorax. Luciolini.

# Sub-Tribe 1.-Lampyrini (genuini).

The genera found in our territory belong to the group Lucidotæ, distinguished from the Lampyres, by the females having wings, or at least elytra, though the latter are sometimes very short.

Second joint of antennæ transverse;

Antennæ bipectinate;

Antennæ very short, 14-jointed. PLEOTOMUS.

Antennæ half as long as the body, 11-jointed. CALYPTOCEPHALUS.

Antennæ serrate, broad, 11-jointed. LUCIDOTA.

Antennæ serrate, 12-jointed, the last joint small. PHAUSIS.

Second joint of antennæ not transverse, antennæ compressed or nearly filiform.

Pleotomus occurs in Texas.

Groups of species in Photinus are strongly marked, but according to Lacordaire are not characterized by differences of generic value. Our species are numerous, and it is in some of those of the third division of Photinus alone, that the females are without wings, and have the clytra much abbreviated. But one species of the first division of Photinus has yet been brought from the Pacific district; the other genera are not represented in that region.

### Sub-Tribe 2.-Luciolini.

The wings and elytra are complete in both sexes of all the genera of this tribe, which is represented in our fauna by four species of Photuris, a genus forming by itself a group distinguished by the head being narrowed behind, and by the labrum being indistinct, characters which approximate to the Telephoridæ. The species are confined to the Atlantic district.

#### Tribe III.—PHENGODINI.

The characters of this tribe are that the head is not covered by the thorax; it is deeply immersed in the first, but less so in the second sub-tribe; the mentum is very small; the antennæ are inserted in front of the eyes, under frontal elevations, and are distant at base. The side pieces of the metathorax are wide, and the inner margin is slightly curved as in Lampyrini. The middle coxæ are contiguous, or very nearly so; the trochanters are moderate in length. The tarsi are uniformly pubescent beneath, as in Lycini and Lampyrini. The females are not known to me.

Our two genera represent distinct sub-tribes :-

Prosternum well developed in front of coxæ. Prosternum very narrow before the coxæ.

Pterotini.
Phengodini.

### Sub-Tribe 1.-Pterotini.

The singular Californian genus, Pterotus Lec., alone constitutes this sub-tribe. The mandibles are long, slender, and prominent, as in Phengodes; the antennæ are 11-jointed, with the joints 3—10 furnished internally with a flattened branch, three times as long as the joint itself. The prosternum before the coxæ is well developed, a character not seen in any other American genus of this family. The maxillary palpi are cylindrical, as long as the mandibles, with the joints equal.

P. obscuripennis, the only species known, is less than half an inch long, reddish yellow, with the head, antennæ (except the base) and the elytra blackish. The female is unknown,

### Sub-Tribe 2.-Phengodini.

The prosternum is very narrow in front of the coxe, as in other Lampyridæ; the maxillary palpi are long and slender; the labrum is not very distinctly separated from the front; the head is prominent, and the gular region is not concealed.

In the genus Phengodes, the third and following joints of the antennæ emit two very long, slender, and flexible, pubescent branches from near the base; the second and third joints are very short. The elytra are one-third the length of the abdomen, and

strongly divergent and subulate; the wings are laid along the dorsal surface of the abdomen. The female is unknown to me.

Two species are found in our country. *P. plumosa*, testaceous, with the antennæ, excepting the base, and the narrow tips of the elytra fuscous, and the sides of the thorax broadly depressed, is found from New York to Texas; *P. fusciceps* Lec., from Texas, of the same size, form, and color, but with the head fuscous, and the sides of the thorax only narrowly depressed.

Lacordaire states that the species of Phengodes emit light; I have never seen a living specimen, but no appearance of phosphorescent structure is visible in any of the specimens before me.

# Sub-Family II.—TELEPHORIDAE.

The head, though sometimes slightly protected by the thorax, is never covered by it as in Lampyrini; it is narrowed behind the eyes, not immersed in the thorax, and its gular region is exposed. The eyes are never very large. The antennæ are serrate or filiform, inserted upon the front, and somewhat distant at base. The labrum is very closely connected with the front. The side pieces of the metathorax are moderately wide, and the epimera are frequently covered in part; the episterna are strongly narrowed behind, and their inner margin is sinuate. The legs are slender, not compressed; the trochanters moderate; the soles of the tarsi are flat or concave and spongy pubescent, except in the groups Omethes and Malthini, and the fourth joint is bilobed.

The sides of the thorax are never foliaceous; and the females are not very different in form from the males.

Our tribes may be separated thus:—

Mentum very long, wider in front. Mentum small, quadrate.

CHAULIOGNATHINI.
TELEPHORINI.

## Tribe I.—CHAULIOGNATHINI.

In this tribe the head is prolonged before the eyes; the maxillæ are very large at the base, and the outer lobe in the living insect can be protraded, forming a long thread-like process. The maxillary palpi are long, and but slightly dilated; the mentum is elongate, and wider in front. The head is prolonged behind the eyes, and the gular sutures coalesce at the median line. The prosternum is small, broadly triangular, and the antecoxal plates

are large and prominent. The middle coxæ are separate, but the mesosternum proper appears to be of a membranous consistence. The claws of the tarsi are simple.

Chauliognathus has been found in the Atlantic and Central districts; the antennæ are filiform; the elytra are as long or nearly as long as the abdomen, and rounded at tip. The anterior margin of the thorax is rounded.

### Tribe II.-TELEPHORINI.

The head is but slightly prolonged before the eyes; the maxillæ are moderate in size, and the mentum is moderate, or small and quadrate; the maxillary palpi are moderately long, and of variable form. The antecoxal plates are small, not conspicuous, and the prosternum is distinct before the coxæ. The middle coxæ are contiguous, and the mesosternum is corneous.

I would divide our genera into four groups :-

Elytra entirely covering the wings;

Third joint of tarsi prolonged beneath.

Third joint of tarsi simple;

Cervical sutures confluent; thorax truncate in front.
Cervical sutures separate: thorax rounded in front.

Elytra abbreviated, wings exposed.

OMETHES.

Podabri.
Telephori.
Malthini.

## Group I .- Omethes.

A singular little insect, found in the Atlantic States, constitutes this group. The head is short; the sutures from the buccal cavity are widely separated; the palpi are moderately long, and the last joint is oblong, not dilated, rounded and almost truncate at tip; the mandibles are long, slender, curved and acute; the sides of the thorax are rounded, and strongly margined; the anterior margin is slightly emarginate. The antennæ are long, rather stout, and feebly serrate, with the second joint a little shorter than the third. The under surface of the first joints of the tarsi is not spongy; the third joint is prolonged beneath, and the fourth joint considerably lobed; the claws are dilated at base into a broad tooth.

The species *Omethes marginatus* is nearly one-fifth of an inch long, elongate, black, clothed with short erect hair; the thorax, legs and base of the antennæ are reddish yellow; the elytra are punctured, and feebly striate, with the suture and margin pale.

I have been much at a loss where to place this insect; the form of the head, and oral organs, the structure of the under surface, and the number of ventral segments, all point clearly to the present family; the episterna of the metathorax are sinuate internally, as in Telephorus, and the epimera in great part covered, but the prolongation beneath of the fourth joint of the tarsi is altogether abnormal. An approach to this may be recognized in a small sucker at the tip of the third joint of the tarsi in Phengodes; and Omethes may, therefore, be regarded, like that genus, as one of the links connecting the two subfamilies of this family.

# Group II.-Podabri.

The head is more elongated than in the next group, and gradually narrowed behind the eyes; the sutures from the buccal opening coalesce on the medial line, and then run backwards. The anterior margin of the thorax is truncate or emarginate, not rounded as in the next group. The last joint of the palpi is always dilated, triangular or securiform, but narrower than in the next group; the mandibles are slender, curved, pointed and unarmed. The soles of the tarsi are spongy pubescent.

I consider our species as belonging to but one genus, Podabrus; they may be divided into two groups, according as the claws are armed with a long acute tooth, giving them the appearance of being cleft, or with a broad basal tooth. The first division corresponds to Brachynotus Kirby (Malthacus Motsch.), and the second to Malthacus Kirby (Dichelotarsus Motsch.).

## Group III .- Telephori.

The head is shorter in this than in the preceding group, and the sutures from the buccal opening run backwards, without uniting at the medial line. The thorax is always rounded from the sides along the anterior margin. The genera are not separated by very definite characters, and it would perhaps be advisable to unite together all but the last. The palpi are moderate in length, and the last joint is usually securiform, rarely suboval. The claws are commonly toothed or bifid, or at least broader at the base, but in Ditemnus are slender. The soles of the tarsi are spongy pubescent.

Last joint of maxillary palpi dilated, and securiform;

Hind angles of thorax rounded:

Head moderately long;

Front broadly rounded at tip; claws cleft. RHAGONYCHA. Front emarginate at tip; claws toothed, rarely cleft. Telephorus. Head short and broad; claws not cleft. Polemius.

Hind angles of thorax incised; head short and broad.

SILIS.

Last joint of maxillary palpi suboval, obliquely truncate; Sides of thorax biincised; antennæ strongly serrate.

DITEMNUS.

The type and only species of Ditemnus is Silis lepida Lec.; the female is unknown. The hind angles of the thorax in the male are deeply incised; the posterior portion forms a long obtuse process; the anterior portion a long spine, in front of this the sides are emarginate, and the anterior angles are prominent laterally and rounded.

## Group IV .- Malthini.

The head is moderately short, frequently large and strongly narrowed behind the eyes; the gular sutures coalesee on the median line; the anterior margin of the thorax is broadly rounded. The elytra are much shorter than the abdomen, and the wings are exposed and folded along the dorsal surface of the abdomen. mandibles are shorter and stonter than in the preceding groups, and are toothed in some genera, simple in others. The tarsi are not spongy pubescent beneath, and the first joints are compressed.

Maxillary palpi with the last joint triangular; Mandibles strongly toothed; claws with broad tooth, contiguous at base.

TRYPHERUS.

Mandibles ; claws small, acute, not toothed. Maxillary palpi with the last joint oval pointed;

Antennæ strongly serrate. TYTTHONYX.

Antennæ filiform, distant from the eyes; mandibles toothed.

MALTHINUS.

Antennæ filiform, very near the eyes; mandibles simple. Malthodes.

Lacordaire describes the mandibles of Trypherus as slender and simple. It is very difficult in these insects to see the form of the mandibles without dissection, and I find, in the present case, that they are stouter than usual in this family, and armed near the tip with a strong tooth. Renewed observations will therefore be necessary to establish the difference between Trypherus and the East Indian genus, Ichthyurus Westwood.

The species I refer doubtfully to Lobetus is Malthinus abdominalis Lec., but the specimen is in very bad condition.

Of these genera Malthodes alone has yet occurred on the Pacific slope.

# FAM. XLI.—MALACHIDAE.

Mentum small, quadrate, corneous; ligula prominent; palpi 3-jointed.

Maxillæ exposed at the base, with two unarmed lobes;

palpi moderately long, 4 jointed.

Antennæ inserted upon the front at the sides, generally

before the eyes; usually serrate, and 11-jointed.

Head exserted, prolonged into a short broad beak; eves rounded (emarginate in some foreign genera); mandibles small; labrum distinct; epistoma separated from the front by a transverse suture, and frequently, in whole or in part, membranous.

Prothorax not foliaceous at the sides; prosternum short, not extending between the coxæ; coxal cavities large, transverse, open behind.

Mesosternum short, oblique, flat, side pieces attaining the

coxæ.

Metasternum short, side pieces usually wide, epimera scarcely visible.

Elytra sometimes entire, sometimes abbreviated.

Abdomen with six free ventral segments; the sixth indis-

tinct in some genera of the second tribe.

Anterior coxe large, conical, contiguous, with distinct trochantin; middle coxæ contiguous, conical, prominent; posterior coxæ transverse, conical, and prominent internally; not covered by the thighs.

Legs moderately long, slender; tibiæ with indistinct terminal spurs; tarsi 5-jointed (the anterior ones in the males of certain foreign genera, 4 jointed), filiform; the fourth joint entire (except in a few foreign genera); claws usually each

with a large inferior membranous appendage.

This family was first established by Eriehson, under the name Melyridæ, and though considered by Lacordaire as only a portion of his family Malacodermes, it appears to me fully capable of The different position of the antennæ, taking rank as distinct. and the presence of the separate piece between the labrum and the front, distinguish it from the Lampyridæ, as herein defined.

It is, moreover, remarkable for exhibiting certain characters not seen in the neighboring families; thus in one tribe the body is furnished with soft extensible vesicles, and the ventral segments of the abdomen are frequently in part membranous; in the second, the apparent ventral segments are sometimes but five in number; the occurrence of membranous appendages between the claws of the tarsi is almost universal; and the fourth joint of the tarsi is bilobed, only by a very rare exception.

The affinities of the family appear to conduct directly from the Lampyridæ to the Cleridæ, with a strong tendency to inosculate, through Byturus, with the Dermestidæ. We have already observed in the Byrrhidæ and Parnidæ on the one side, and the Daseyllidæ and Schizopodidæ on the other, similar affinities between the Serricorn and Clavicorn series.

I would consider our genera as indicating three tribes :-

Body with extensible vesicles.

MALACHINI.

Body without vesicles;

Eyes finely granulated; Eyes coarsely granulated.

DASYTINI. RHADALINI.

### Tribe I.-MALACHINI.

Body with lateral vesicles capable of distension; the anterior pair proceeding from a fissure beneath the anterior angles of the prothorax: head short; mandibles toothed at the extremity; eyes entire, finely granulated; palpi moderate, in our genera slender; last joint of the tarsi with two membranous appendages beneath the claws; ventral segments six, always distinct.

The species of this tribe are small insects found on flowers, and on the ground near water; many of them are of pleasing colors, but all are of small size. The form is varied, some resembling at first view certain Staphylinidæ.

The sexual characters are various; in Collops the third joint of the antennæ is much enlarged and distorted in the male. In Anthocomus, Attalus, and Ebæus, the elytra at the extremity are impressed, prolonged, and distorted; the second joint of the anterior tarsi is obliquely prolonged and dilated in the males of Attalus, Microlipus, and Endcodes.

Our genera are numerous, and may be tabulated thus:—
Antennæ apparently 10-jointed.

Collops.
Antennæ evidently 11-jointed;

inserted on the front, nearly between the eyes;

' Head elongated.

Head short;

Epistoma large, in part corneous.

TANAOPS.

Epistoma short, entirely membranous.

MALACHIUS. HAPALORHINUS.

inserted at the sides near the anterior margin of the front;

Elytra nearly or quite covering the abdomen:

Anterior tarsi slender and simple in both sexes;

Epistoma membranous, ventral segments partly membranous.

Anterior tarsi slender, second joint oblique and prolonged in \$; Epistoma membranous; ventral segments partly membranous.

Epistoma corneous, indistinct; ventral segments entirely corneous.

Anterior tarsi stouter, not conspicuously deformed in the male; epistoma not very distinct; ventral segments corneous;

Body oval, or ovate, legs moderate.

EBAEUS.

Body elongate, legs long.

MICROLIPUS.

Elytra short; anterior tarsi of the 3 with the second joint obliquely dilated and prolonged; epistoma large membranous; abdominal segments entirely corneous. ENDEODES.

Tanaops, Hapalorhinus, Microlipus, and Endeodes are found only in California; Acletus has occurred only at Lake Superior. The other genera are widely diffused except Malachius, of which one European species, M. aeneus, has been introduced in Massachusetts.

The female of Microlipus is without wings, and was described by me as belonging to Charopus, from which it differs by having the joints 1-4 of the anterior tarsi equal in length. The species of Endeodes were formerly considered by me as belonging to A telestus.

The species here referred to Attalus correspond to groups 2 and 3 of Anthocomus as established by Erichson, and to Scalopterus Motsch. Duval has shown that they do not differ generically from the type of Attalus, and has very properly combined them with that genus. Tanaops corresponds with Cephalistes Motsch.

### Tribe II.-DASYTINI.

Body without lateral vesicles; angles of the prothorax not fissured beneath; front prolonged into a short beak in our species; antennæ inserted on the sides of the head, in front of the eyes, which are finely granulated. Claws of the tarsi either with or without membranous appendages.

In some genera of this tribe, the middle and hind coxæ resemble those of Byturus, which, however, differs by the anterior coxæ being separated by the prosternum, and by the tarsi being lobed beneath. To add to the resemblance, the sixth ventral segment is frequently by no means distinct.

Our genera are as follows, all having the last joint of the maxillary palpi nearly cylindrical.

First joint of tarsi not shorter than the second; (body punctured);

Claws of the tarsi with membranous appendages,

which are broad and connate entirely or in great part with the claws; thorax without impressed lines;

Anterior tibiæ with a range of spines on the outer margin: thorax not serrate or ciliate at the sides.

Pristoscelis.

Anterior tible not spinous; thorax ciliate at the sides which are usually serrate.

which are narrow and free almost to the base: thorax with an impressed line near the lateral margin;

Both claws with appendages Eschatocrepis.

One claw with an appendage, the other toothed at base. ALLONYX. Claws of the tarsi broadly toothed, without appendages.

DASYTES.

First joint of tarsi shorter than the second; claws without appendages; (body cribrate-punctate, edge of thorax and elytra serrate.) Melyris.

The species in my collection appertain as follows, to the genera above mentioned. Those of Pristoscelis may be divided into three groups: 1. Pubescence not erect, appendages of claws rounded at tip (Byturosomus and Emmenotarsus Motsch.); D. rufipes Motsch., (griseus Lee.); brevicornis Lee: 2. Pubescence not erect, appendage of one claw truncate (Trichochrous Motsch.); D. fuscus Lee: 3. Pubescence erect, appendages of claws rounded at tip (Emmenotarsus Motsch.); D. rufipennis Lee., D. quadricollis Lee., and the remaining species of my group A—a. (Proc. Acad. Nat. Sc., Philadelphia, VI, 169.)

To Listrus Motsch., belong D. canescens Mann., and allied species; this and the preceding genus is distributed from Kansas to the Pacific.

Of Eschatocrepis but one Californian species, *D. constrictus* Lee., is known to me; it is closely allied to the European Haplocnemus in characters, but differs in appearance. Of Allonyx also, but one Californian species, *D. sculptilis*, is known. A single noudescript species of Dasytes, from California, is in my collection; *D. breviusculus* Motsch., is nearly related to it.

To Melyris belong two species from the Atlantic States, D. basalis and cribratus Lec.

### Tribe III.-RHADALINI.

A single species, Rhadalus testaceus Lec., from California and Arizona, by its strongly granulated eyes, and much elongated maxillary palpi, with the last joint large and securiform is capable of being received as a distinct tribe. It is a transition form from the present to the next family, from which it differs by the joints of the tarsi not being lobed or spongy beneath, and by the claws being provided with long membranous appendages which are free, except at base.

# FAM. XLII.—CLERIDAE.

Mentum quadrate, moderate in size; ligula membranous, or coriaceous, without paraglossæ; labial palpi 3-jointed, frequently very long and dilated.

Maxillæ exposed at the base, with two ciliate unarmed lobes; palpi 4-jointed, with the last joint frequently securi-

form.

Head prominent, eyes usually emarginate; epistoma distinct from the front, membranous or coriaceous anteriorly; mandibles short, labrum distinct.

Antennæ inserted at the sides of the front, usually 11-jointed, serrate, or pectinate, or with the outer joints enlarged forming

a serrate, or rarely a compact club.

Prothorax with the side pieces not separate, though in one tribe they are defined by a side margin; coxal cavities open behind, sometimes round, sometimes transverse; prosternum short, not prolonged.

Mesosternum flat, side pieces extending to the coxe.

Metasternum with long narrow side pieces; epimera scarcely visible.

Elytra entire, or nearly so, with the epipleuræ distinct,

narrow.

Abdomen with five or six free ventral segments.

Anterior coxe conical, prominent, contiguous, or very slightly separated, trochantin sometimes distinct; middle coxe rounded, not or very slightly prominent, and not contiguous in many, but conical and prominent in Enoplini,

usually with distinct trochantin; hind coxæ transverse, not

prominent, covered by the thighs in repose.

Legs slender, frequently long, trochanters on the internal margin of the thighs; tibiæ with the terminal spurs small or indistinct; tarsi ō-jointed; the fourth joint in Enopliini very small and indistinct; joints 1—4 furnished beneath with membranous appendages; claws simple or toothed, never with membranous appendages as in Melyridæ.

A tolerably numerous family of insects found on plants, or on the trunks of trees, but which in the larva state are carnivorous, preying upon other insects like the Lampyridæ and Melyridæ. The larvæ of various Trichodes are found in the nests of bees. A few (Corynetes, Necrobia,) live on dead animal matter. Many of the species are of beautiful color and graceful form.

The genera may be arranged in two tribes.

Tarsi with fourth joint of normal size: pronotum continuous with the flauks of the thorax. Clerini.

Tarsi with the fourth joint very small and indistinct; pronotum separated from the flanks by a marginal line.

ENOPLIMIT.

## Tribe I.-CLERINI.

The fourth joint of the tarsi equal to the third, and the flanks or the prothorax continuous with the back, are sufficient to cause the members of this tribe to be recognized: I will only say farther, that the middle coxe are scarcely prominent, and are moderately distant. Three groups are indicated by the genera represented in our fauna:—

First joint of tarsi distinct, at least equal to the second. First joint of tarsi covered by the second;

TILLI.

Eyes emarginate in front.

CLERI.

Eyes emarginate i

Hydnoceri.

## Group I .- Tilli.

Insects of a very long and slender form; the head is large; the eyes transverse, emarginate in front: the prothorax long, with the coxal cavities smaller than usual; the middle coxæ are round, slightly prominent; tarsi with five distinct joints, the first frequently longer than the second; claws toothed; maxillary palpi with the last joint cylindrical.

Antennæ 10-jointed, the last joint very long and flat. En Antennæ 11-jointed; serrate;

ELASMOCERUS.

Eyes finely granulated;

Labrum entire. Labrum emarginate, posterior thighs elongated.

TILLUS. PERILYPUS.

Eyes coarsely granulated.

CYMATODERA.

Elasmocerus inhabits the Atlantic district, Cymatodera is widely diffused, the representatives of the other genera are unknown to Tillus collaris is found in Georgia, and Perilypus is said to be from California.

## Group II.-Cleri.

Head large, eyes not very prominent, emarginate in front; middle coxe rounded, slightly prominent; tarsi with the first joint much shorter than the second, and covered by it, so as not to be visible from above; the species are more numerous than in the other groups.

Eyes strongly granulated.

Antennæ serrate, maxillary palpi cylindrical.

PRIOCERA.

TRICHODES.

Antennæ with the joints 9-11 larger; all the palpi dilated.

TARSOSTENUS.

Eyes finely granulated.

Maxillary palpi somewhat dilated, antennal club triangular.

Maxillary palpi not dilated;

Posterior tarsi short, not dilated. THANEROCLERUS.

Posterior tarsi moderate, broadly dilated.

CLERUS.

Posterior tarsi longer, scarcely dilated;

Body hairy, opake. THANASIMUS. Body less hairy, shining. CLERONOMUS.

The last genus, identical with Colyphus Spinola, is unknown to me, the species are said to be from California; the characters are declared by Lacordaire to be very similar to those of Thanasimus, but the appearance of the species is very different.

Trichodes and Clerus are widely extended; the other genera are represented only in the Atlantic district.

# Group III.-Hydnoceri.

Head large, eyes very prominent, entire; middle coxe not prominent, slightly separated; tarsi with the first joint shorter than the second, principally inferior; maxillary palpi cylindrical.

But one genus of this group, Hydnocera, exists in our fauna. It is widely diffused; the species are small, and have the form of Cicindela; they are found on leaves of trees, and are active, taking

wing easily. The antennæ are short, slender, and terminated by a small rounded mass composed of two joints.

### Tribe II.-ENOPLIINI.

In this tribe the fourth joint of the tarsi is very small, and rudimentary, forming merely a slight enlargement at the base of the last joint; the pronotum is separated from the flanks (except in Ichnea) by a more or less distinct elevated margin. The middle coxe are prominent, conical, and contiguous in the first group, but not prominent and slightly separate in the second, in which too are found the only species which devour dead animal matter.

Antennæ with the external joints large, flattened, triangular. Antennæ with the last three joints forming a small club. CORYNETES.

# Group I .- Enoplia.

The last joints of the antennæ in these insects are flat, much dilated and triangular, thus forming a serrate mass; in the male the inner angle of the triangular joints is frequently prolonged Finding that in Phyllobænus the pronotum is defined by a distinct lateral line, I have been obliged to remove it to the present tribe, instead of constituting with it a group of the previous tribe. The structure of the tarsi is also as in Enoplium, the fourth joint being very small. Ichnea, with the tarsi and antennæ of this tribe and group, presents a thorax having the pronotum entirely continuous with the flanks, as in the preceding tribe.

### A. Eyes emarginate internally;

Antennæ 10-jointed,\* club 3-jointed, not longer than the other portion.

Phyllobænus.

Antennæ with intermediate joints indistinct and very short, club 3-jointed, with each joint as long as the basal part of the antennæ.

### B. Eyes emarginate in front;

First joint of tarsi equal to the second, antennæ 11-jointed;

Anterior tibiæ serrate externally.

CHARIESSA.

Anterior tibiæ not serrate.

CREGYA.

First joint of tarsi shorter than the second, inferior;

Eyes finely granulate, antennæ 10-jointed. Eyes coarsely granulate, antennæ 11-jointed.

ENOPLIUM. ORTHOPLEURA.

<sup>\*</sup> Lacordaire and Spinola both describe the antennæ as 11-jointed; I have, after examining several individuals, found the number of joints to be only ten.

I have combined with Chariessa, Pelonium Spin., as there does not appear to be any sufficient character to separate them. The species having the sides of the thorax sinuate, differ by the anterior tibiæ not being serrate externally, and I have therefore separated them to form the new genus Cregya: they are Pelonium vetustum Spin., Enoplium fasciatum Lec., and Clerus oculatus Say. Of these genera Chariessa and Cregya are represented in the Pacific as well as in the Atlantic districts.

## Group II .- Corynetes.

Insects of small size, with the antennæ 11-jointed, the last three joints forming a small club; the maxillary palpi are longer than the labial, which are only of ordinary length, and not of large size as in the preceding members of this family. Our species of Necrobia have been introduced from Europe, and live on animal materials in houses, and in dried carrion in the open air.

The genera are as follows:-

First joint of tarsi equal to the second;

Club of antennæ elongated, loose. Club of antennæ small, compact. LEBASIELLA. LARICOBIUS.

First joint of tarsi shorter and partly covered by the second, club of antennæ compact;

Palpi with the last joint elongate, truncate.

Palpi with the last joint subulate.

NECROBIA.
OPETIOPALPUS.

The genus Laricobius is remarkable for the elytra having rows of large quadrate punctures: the thorax is smaller than usual, transverse, marked with large scattered punctures. Our species is one-tenth of an inch long, of a brownish-red color, clothed with short black hairs: I have named it *L. rubidus*; it was found near Washington, D. C., by Mr. H. Ulke.

# FAM. XLIII.—LYMEXYLIDAE.

Mentum small, quadrate, corneous; ligula coriaceous, small; palpi 3-jointed.

Maxille exposed at base, with two small ciliate lobes; palpi 4-jointed, stout, in the male very large, flabellate.

Antennæ inserted at the sides of the head, 11-jointed. serrate.

Head deflexed, narrowed behind; eyes usually very large;

mandibles moderate, labrum and clypeus distinct.

Prothorax with the lateral margin well defined, side pieces not separate; prosternum short; coxal cavities round, confluent in our genera, open behind.

Mesosternum small, flat, side pieces large, attaining widely

the coxæ.

Metasternum long, with narrow side pieces; epimera not visible.

Elytra nearly as long as the abdomen in our genera, much abbreviated in Atractocerus.

Abdomen with five free ventral segments in Lymexylon,

with six or seven in Atractocerus and Hylocoetus.

Anterior coxæ conical, large, prominent, contiguous in our genera, distant in Atractocerus; middle coxæ also large, conical, contiguous; posterior coxæ transverse, conical, prominent internally, contiguous.

Legs slender, moderately long; tibiæ with small terminal

spurs; tarsi 5-jointed, filiform; claws simple.

This family contains but three genera, of which one, Atractocerus, has not yet occurred in our fauna, but may be expected in Arizona or Texas, as I have already seen specimens from Chihuahua. A species of Lymexylon is very destructive to ship timber in northern Europe, but no danger is to be apprehended from our species, which is very rare. The genus Hylocoetus is remarkable for having a small occllus at the middle of the front.

Abdomen with six ventral segments, elytra entire. Hy
Abdomen with five ventral segments, elytra entire. Ly.

HYLOCOETUS. LYMEXYLON.

# FAM. XLIV.—CUPESIDAE.

Mentum small, transverse, corneous; ligula small bilobed;

palpi 3-jointed.

Maxillæ uncovered at the base, but concealed in the deep buccal cavity, with two lobes, the outer one corneous, hooked; palpi 4-jointed, short.

Antennæ inserted upon the front, approximate, rigid, fili-

form, moderately elongated, 11-jointed.

Head porrected, tuberculate, suddenly constricted behind; eyes round, prominent, very finely granulated; lower surface with the genæ large and prominent, forming a deep buccal cavity; mandibles small; labrum very short, truncate.

Prothorax small, quadrate, lateral margin well defined, side pieces not separate; prosternum entire, with a slight point behind fitting into the mesosternum; coxal cavities small, transverse, open behind; under surface excavated for the reception of the anterior legs.

Mesosternum large, quadrate, receiving in front the extremity of the prosternum; side pieces excavated for the

middle legs, and attaining the coxæ.

Metasternum moderate, side pieces narrow, epimera not visible.

Elytra entire, with rows of large square punctures, and intermediate ribs; epipleuræ narrow, extending to the apex.

Abdomen with five free ventral segments.

Anterior coxe small, not prominent, slightly separated; middle coxe quadrate, flat, contiguous; posterior transverse, flat, sulcate posteriorly, receiving the thighs in repose.

Legs slender, contractile; tibiæ without terminal spurs; tarsi 5-jointed, slightly dilated, spongy beneath; claws small,

simple.

A family containing a single very anomalous genus, of which but two species inhabit the United States; one of them, *C. capitata*, is black, with the head red; the other, *C. cinerea*, is pale gray, with darker lines. They are found under bark of decaying trees, and also occasionally in houses.

The affinities of this family are very obscure; in the form and insertion of the antennæ it is similar to the first genera of the next family, but other characters, such as the form of coxæ and retractility of the legs, are at variance. The body is covered with small scales as in the genera alluded to.

In this condition of doubt, I leave the family where it was placed by Lacordaire.

# FAM. XLV.—PTINIDAE.

Mentum usually small and quadrate, sometimes larger and transverse, corneous; ligula membranous or coriaceous, without paraglossæ; palpi 3 jointed, short.

Maxille exposed at base, with two ciliate lobes, the internal one sometimes very small; palpi 4-jointed, short.

Antennæ inserted upon the front in the first sub-family, at the sides of the front in the others, having from 9-11 joints, variable in form.

Head retractile, frequently protected by the prothorax; oral organs usually small; epistoma sometimes distinct; labrum distinct in all of our genera.

Prothorax with the side pieces not separate; lateral margin none in the first tribe, distinct in the second; coxal cavities

rounded, open behind.

Mesosternum small, oblique; side pieces not attaining the coxe.

Metasternum moderate or long, side pieces narrow.

Elytra entire; epipleuræ distinct, sometimes very broad.

Abdomen with five ventral segments, the first not elon-

gated.

Anterior and middle coxæ cylindrical, or subglobose, moderately or but slightly prominent, without trochantins; posterior coxæ transverse, not prominent or dilated internally in the first; sulcate behind for the reception of the thighs in the second; slightly prominent internally in the third and fourth sub-families.

Legs contractile in the second sub-family, frequently long; trochanters in the axis of the thighs; tibiæ slender, with the terminal spurs sometimes small, sometimes large; tarsi 5-jointed, but with the first joint small in the third and fourth

sub-families.

A family containing species, mostly of small size which live ou vegetable matters in an incipient stage of decay; many are therefore found about houses, and have been transported by commerce over the whole globe. The form varies greatly according to the sub-family.

Four sub-families are indicated as follows:-

Antennæ inserted upon the front.
Antennæ inserted before the eyes;

PTINIDAE.

Tibiæ without spurs.

ANOBIIDAE.

Tibiæ with distinct spurs;
First ventral segment scarcely longer.

BOSTRICHIDAE.

First ventral segment elongated.

LYCTIDAE.

# Sub-Family I.—PTINIDAE.

These insects are of small size, with the head and thorax comparatively small. The antennæ are inserted upon the front, long, not serrate, and rather stout. The legs are long, not contractile, with the trochanters large; the tibiæ have the spurs obsolete; in

the first tribe the first joint of the tarsi is not shorter than the second. The hind coxæ are transverse, and are covered by the thighs, in repose. The flanks are continuous with the pronotum.

Two tribes may be separated thus:-

Antennæ very approximate. Antennæ distant. PTININI.
EUCRADINI.

NIPTUS.

PTINUS.

### Tribe I.—PTININI.

The antennæ are very approximate at base, long and filiform; the elytra when glabrous are very much inflated, and embrace the sides of the trunk very widely, leaving the ventral segments very small and narrow.

Our genera are :--

Antennæ approximated, filiform; head tuberculate;

Elytra inflated, smooth, shining, glabrous;

Thorax smooth, glabrons.

Thorax tuberculate, pubescent.

Elytra punctured, pubescent;

Teeth of the mentum rounded, labrum emarginate.

Teeth of the mentum acute; labrum rounded.

The first joint of the tarsi is long in Ptinus, but only equal to the second in the other genera.

Gibbium scotias is imported from Europe, as are some of the species of Ptinus, which genus is however generally diffused. Niptus is represented by one New Mexican species.

#### Tribe II.-EUCRADINI.

Eucrada humeralis Lec. (Hedobia humeralis Mels.), while evidently related to the preceding tribe, differs by having the antennæ widely separated at the base, serrate in the female, but with the tip of the 3—10 joints prolonged in the male, so that the organs become pectinate; the thorax is tuberculate, the elytra are cylindrical, and do not embrace the flanks. The trochanters are moderate, the tibiæ are terminated by a single large spur; the first joint of the tarsi is long.

# Sub-Family II.—ANOBIIDAE.

The insects of this sub-family are generally of a cylindrical form, though some of the species of Doreatoma, and especially

PTINIDAE. 203

Tylistus, are nearly globular. The antennæ are distant at base and inserted immediately in front of the eyes; they are either simply serrate, or have the three outer joints longer; rarely (male of Ptilinus) they are flabellate. The hind thighs in repose are received by the hind coxæ, which are deeply sulcate behind for that purpose, and form a plate, which is not dilated inwards. The trochanters are short; the legs are retractile, the tibiæ have obsolete spurs, and the first joint of the tarsi is not shorter than the second. The lateral margin of the pronotum is distinct in all of our genera.

Two tribes are represented in our fauna:-

Eyes almost in contact with the prothorax. Eyes distant from the prothorax.

Anobiini. Ptilinini.

### Tribe I.-ANOBUNI.

The form is less regularly cylindrical than in the next tribe; the head is usually very retractile and deflexed, so as to be not visible from above, in a state of repose, and the eyes are in contact with the anterior margin of the thorax.

Three groups may be formed, thus:-

Prothorax much excavated beneath, for the protection of the mouth;

Mandibles dilated at base.

XYLETINI.
ANOBIA.

Mandibles not dilated at base.

Prothorax not excavated beneath.

DRYOPHILI.

# Group I.-Xyletini.

The insects of this group are more robust than those of the other groups, and the contractile power here attains its highest perfection. The genera form two sub-groups, according to the form of the antennæ. The large and stout mandibles are dilated at the base; the first joint of the antennæ is frequently large; the head is received closely on the breast, and the legs are tightly contracted in a state of repose. An oblique line, sometimes elevated so as to form a margin, runs from the eyes to the base of the labrum; the plates of the hind coxæ are moderately wide.

Our genera may be separated thus:-

Metasternum advanced between the middle coxæ;

Three outer joints of antennæ very large;

Metasternum emarginate, eyes entire. Metasternum truncate, eyes divided or emarginate. EUPACTUS.
TYLISTUS.

Metasternum not advanced between the coxæ, eyes entire (body less perfectly contractile);

Three outer joints of antennæ very large. DORCATOMA. Antennæ serrate, 11-jointed; onter joints not larger. XYLETINUS.

In Eupaetus and Tylistus the epistoma is separated from the front by a deep line; in the other two genera the line is quite The vacant space between the anterior legs in Eupaetus, which terminates in the emargination of the metasternum, is filled in repose by the last joints of the antennæ. The type of Tylistus is Dorcatoma simile Say; the mandibles in repose are applied to the metasternum.

## Group II .- Anobia.

In this group the mandibles are less dilated at base, and the prothorax is deeply exeavated beneath, for the protection of the mouth, which in repose is received upon and between the anterior legs, which are not contiguous at base. The contractile power is less developed than in the preceding group, and the species are oblong or sub-eylindrical in form. The antennæ are 10- or 11jointed, and vary in form, according to the genera. are always punctured in rows; the plates of the hind coxe are narrow, and the last joint of the tarsi is broad and depressed.

Our genera are :---

Antennæ 11-jointed;

Mesosternum deeply and broadly excavated;

Groove extending upon the metasternum;

Antennæ serrate, outer joints not larger. TRYPOPITYS. Antennæ with the joints 9-11 much longer. Coelostethus.

Groove not extending upon the metasternum; antennæ with the joints

9-11 much longer;

HEMICOELUS. Thighs not clavate.

PTINODES. Thighs strongly clavate.

Mesosternum flat or scarcely concave; antennæ with the joints 9-11 much longer.

Anterior coxæ widely separated;

Claws with a large broad tooth.

TRICHODESMA. **Nicobium.** Claws slightly dilated at base.

Anobium.

Anterior coxæ nearly contiguous. Antennæ 10-jointed, joints 4-7 very short, 8-10 very long;

Mesosternum not protuberant;

Anterior coxæ nearly contiguous.

OLIGOMERUS. CACOTEMNUS. Anterior coxe widely separated. Mesosternum dilated into a large plate. PETALIUM.

XESTOBIUM.

Philoxylox.

The type of Coelostethus is Anobium notatum Say; A. quadrulum Lec. also belongs to it; of Ptinodes, Anobium setiferum Lec.; of Trichodesma, Anobium gibbosum Say. To Hemicoelus belong A. gibbicolle Lec., and carinatum Say.

The type of Nicobium is A. sericeum Mels., and of Caeotemnus To Oligomerus belongs A. thoracicum Mels. is A. errans Mels. The type of Petalium is Anobium bistriatum Sav, a very small elongated species; the antennæ are 10-jointed, the 4th joint is triangular, and the 5-7 small and elosely connected; the three outer ones are larger. The mesosternum forms a large transverse plate, rounded in front, covering the anterior coxe and almost meeting the head in repose, and the middle tarsi are received in a deep groove each side between it and the metasternum; the second ventral segment is very long; the elytra have but two striæ near the margin.

## Group III.-Dryophili.

The mandibles are not dilated at the base; the head is wider than in the preceding group, and the eyes are sometimes very large and prominent. The antennæ are 11-jointed, and the outer three joints are longer, and sometimes (Dryophilus) attain a very great length. The prothorax beneath is not hollowed out for the protection of the under surface of the head, which is not applied so closely to the breast in repose as in the preceding group. The prosternum is sometimes more developed in front of the coxe, than in the Anobia; there is never any pectoral excavation. The elytra are not punctured in rows; the plates of the hind coxe are very small and almost vanish externally; the last joint of the tarsi is short and dilated in Xestobium, but is longer and narrow in the others.

Our genera are four, and may be thus distinguished:-

Prosternum very short in front of the coxæ;

Anterior coxæ separated by the prosternum. Anterior coxæ contiguous.

Prosternum well developed in front of the coxe;

Anterior cox:e contiguous.

Anterior coxe separated by the prosternum.

Dryophilus. Ozognathus.

Of Xestobium we have only the European X. tesselatum, which has been introduced. Dryophilus and Philoxylon occur on both sides of the continent. Ozognathus is founded upon the Californian Anobium cornutum Lec.; the mandibles of the male are armed at the base, each with a long slender horn, ascending and eurving inwards, so as to meet its fellow at the tip. To Philoxylon belong Anobium convexifrons Mels., and A. punctulatum Lec.

#### Tribe II .- PTILININI.

But one genus, Ptilinus, of accurate cylindrical form, represents The head is deflexed, less retractile than in the preceding groups; the eyes are small, rounded, and distant from the thorax in the female, but larger in the male; the antennæ are serrate in the female, branched in the male, and 11-jointed. last joint of the palpi is oval. The thorax is convex, rounded in front, protecting the head, and granulate with small tubercles towards the apex; it is not excavated beneath, and the prosternum is moderately developed in front of the coxæ, which are large and contiguous. The plates of the hind coxæ are exceedingly narrow. The legs are moderately retractile, and the first joint of the tarsi is longer than the second. The genus is represented on both coasts of our country; it approaches closely in form certain members of the tribe of the next sub-family, and establishes a transition between the two. A slight relation with Melasis of the sub-family Eucnemidae is likewise quite obvious.

# Sub-Family III.—BOSTRICHIDAE.

The insects of this sub-family are elongate in form; the head is usually deflexed, and protected by the thorax, which is then hood-like in form; in one tribe, Psoini, it is prominent, and not covered. The mentum is usually small, but in Psoini is large and transverse. The antennæ are distant, and inserted immediately in front of the eyes, upon, or under the frontal margin, and the three outer joints are always larger. The eyes are small, convex, rounded, and distant from the prothorax. The pronotum is not separated from the flanks by a marginal line, except in the first tribe. The anterior coxæ are large, globose or sub-conical; the hind coxæ are not sulcate behind, and project at the inner part; the spurs of the middle and hind tibiæ are distinct, and the anterior tibiæ are terminated by one long spur, and usually serrate; the trochanters are short; the first joint of the tarsi is very short,

PTINIDAE. 207

sometimes obsolete; the fifth joint is long, with simple claws. The first ventral segment is but slightly longer than the second.

Three tribes are indicated :-

Thorax with distinct lateral margin.

ENDECATOMINI.

Thorax without lateral margin;

Head covered by prothorax; anterior coxe contiguous. Head prominent; anterior coxe distant.

Bostrichini.
Psoini.

### Tribe I.—ENDECATOMINI.

The genus Endecatomus, placed by previous authors in the family Cisidae, seems to me, for reasons indicated below, to belong rather to the present, in which it constitutes a distinct tribe.

The head is covered in part by the prothorax, which is distinctly margined at the sides. The epistoma is separated from the front by a very distinct suture; the antennæ are 11-jointed, with a loosely articulated 3-jointed club. The anterior coxæ are prominent, and contiguous; the terminal spur of the anterior tibiæ is large and hooked. The last joint of the tarsi is very long.

The species known to me, Endecatomus rugosus, is an oblong convex blackish-brown dull insect, covered with inequalities and small erect brown hairs; it is less than one-fifth of an inch long, and is found in fungi. It seems to have but little relation to the Cisidae, but to be rather a connecting link between Bostrichus and Anobium.

## Tribe II.—BOSTRICHINI.

The insects of this tribe are moderate in size, or small, of a cylindrical form, with the head deflexed, prolonged behind the small prominent eyes, and covered by the hood-like prolongation of the prothorax; the epistoma is separated by a moderately distinct suture; the anterior portion of the latter is usually rough with tubercles, and in the genus Bostrichus is frequently prolonged, forming two short horizontal horns; the anterior coxal cavities are confluent; the hind part of the clytra is frequently obliquely declivous. The antennæ have 10 joints in our genera, and the club is 3-jointed. The external margin of the anterior tibiæ is more or less serrate in all of our genera.

Our genera are found in fungi, and under bark :-

Intermediate joints of antennæ shorter than the first and second;

Joints 8-10 very long, forming a serrate club.

Sinonylon.

Intermediate joints of antennæ longer than the first and second;

Tarsi as long as the tibiæ, 2d joint elongated;

Front margined at least at the sides.

BOSTRICHUS.
Front not margined at the sides.

AMPHICERUS.

Tarsi short, 2d joint not elongated;

Joints 8 and 9 of antennæ transverse, rounded.

Joints 8 and 9 of antennæ triangular.

Dixoderus.

Rhizopertha.

The only species known of the last genus, Rhizopertha pusilla, has been introduced in specimens of wheat distributed from the Patent Office. To Amphicerus belong Apate bicaudata Say, A. aspericollis Germ., and Bostrichus punctipennis Lee.

### Tribe III.-PSOINI.

The insects composing this tribe are of large or moderate size; the thorax is oval, not margined at the sides, truncate in front, not protecting the head, which is large and prominent. The club of the antennæ is 3-jointed. The anterior coxæ are separated by the prosternum.

Our genera are two in number, and are represented only in maritime California.

Antennæ 11-jointed.
Antennæ 10-jointed.

Polycaon.
Acrepis.

Polyeaon Lap. has for synonyms Exops Curtis, and Allœocnemis Lec. The original unique specimen of Acrepis maculata Lec. has been lost at sea, and I cannot now determine the difference between the genus and Psoa. It is quite possible that it should be united either with Psoa or Exopsoides.

# Sub-Family IV.—LYCTIDAE.

The head is prominent, somewhat narrowed behind the eyes, not covered by the prothorax, which is trapezoidal in form, and has a fine lateral margin. The antennæ are 11-jointed, and the club is rounded, and consists of but two joints; the epistoma is separated from the front by an indistinct suture. The anterior coxæ are entirely inclosed and separated by the prosternum; the middle ones are also moderately separated, and the hind coxæ are widely distant; the first ventral segment is much longer than the others.

CIOIDAE. 209

Our genera are two, both containing species of small size:

Anterior tibiæ with the outer apical angle prolonged.

Anterior tibiæ with the outer apical angle not prolonged.

TROGONYLON.

The type of Trogoxylon is *Xylotrogus parallelipipedus* Mels., from the Middle States.

Lyctus is attached by Lacordaire to the Cioidæ, but he admits the difficulty of placing it properly in any family; from the 5-jointed tarsi, with the first joint very short, and the distinct terminal spur of the anterior tibiæ, I think it and Endecatomus are more naturally placed in the present than in the next family.

Lacerdaire states that the anterior and middle coxe are contiguous in Lyctus; they are not so in any of our species, and although nearly in contact in *L. striatus*, they are widely separate in *L. planicollis*.

# FAM. XLVI.—CIOIDAE.

Mentum trapezoidal, corneous; ligula without paraglossæ; palpi short, 3-jointed.

Maxillæ exposed at the base, with two flattened, ciliated

lobes; palpi short, 4-jointed.

Antennæ inserted at the anterior margin of the eyes; 8—10-jointed, with the last three joints larger, forming a loose club.

Head more or less protected by the thorax; epistoma usually with a reflexed margin; labrum distinct; mandibles short in our genera; clypeal suture distinct; eyes rounded, somewhat coarsely granulated.

Prothorax with the lateral margin distinct; cylindrical, rounded in front, and prolonged over the head; occasionally toothed or horned; coxal cavities small, separate, narrowly

closed behind.

Mesosternum short, triangular; side pieces scarcely extending to the coxe.

Metasternum large; side pieces narrow, linear.

Elytra entirely covering the abdomen; epipleura narrow. Abdomen with five free ventral segments, the first longer than the others.

Anterior and middle coxe oval, not prominent, without trochantins; hind ones transverse, separated.

Legs moderately short; tibiæ either dilated and serrate,

or linear, spurs not distinct; tarsi 4-jointed, joints 1—3 very short, equal, 4th long, with simple claws.

Very small insects, found under bark of trees, and in the dry and woody species of fungus, such as Polyporus. They are usually gregarious. In some of the species the head and the anterior margin of the thorax are in the male ornamented with horns.

Our genera are but three in number, all having the tarsi free, not received in tibial grooves.

Antennæ 10-jointed, tibiæ not serrate. Antennæ 9-jointed. Antennæ 8-jointed, tibiæ not serrate. CIS.
ENNEARTHRON.
CERACIS.

The last genus is not yet represented in the Pacific fauna. The other two are distributed on both sides of the continent.

# FAM. XLVII.—TENEBRIONIDAE.

Mentum variable in form, sometimes entirely closing the opening of the mouth inferiorly; ligula usually visible, sometimes concealed; paraglossæ distinet; labial palpi 3-jointed.

Maxillae with two lobes, the inner one smaller, sometimes armed with a terminal corneous hook; palpi 4-jointed.

Mandibles usually short, robust, and furnished with a basal tooth; emarginate at tip in the first and second subfamilies; either emarginate or entire in the third.

Eyes usually transverse, with the anterior outline emar-

ginate.

Antennæ generally inserted under the sides of the head, or at least under a small frontal ridge; usually thickened externally; sometimes subserrate, very rarely (male of Rhipidandrus) pectinate; usually 11-jointed, very rarely 10-jointed.

Prothorax with epimera and episterna not separate; coxal cavities separated by the prosternum (except in Dacoderus),

and entirely closed behind.

Mesosternum short, side pieces usually attaining the coxæ, though in several tribes they are cut off by the sterna; in the latter case no trochantin is visible.

Metasternum variable in length, side pieces sometimes

wide, sometimes narrow.

Elytra rounded at tip, covering the abdomen, frequently embracing its sides very far.

Abdomen with five ventral segments, of which the first three appear more closely connected than the others, though not decidedly connate.

Legs variable; anterior coxæ globose, rarely oval, not prominent, without trochantin; middle coxæ rounded, with or without trochantin; hind coxæ transverse, more or less separated; tarsi without membranous lobes; anterior and middle ones 5-jointed; hind tarsi 4-jointed, the first joint almost always longer than the second; claws simple.

This family contains a large number of genera, possessing in common very few characters, yet linked together by such gradual changes in structure that their classification presents almost insuperable difficulties. The division into tribes can scarcely be exhibited in a tabular form, on account of the varied relations exhibited by the members of some of the tribes.

The species live upon vegetable matter in various conditions; the habits of those contained in the respective tribes will be mentioned below.

The limits of the family are very well defined, although by Lacordaire certain genera have been retained, which I have found it necessary to exclude; these are Boros, Cononotus, and Penthe, in all of which the anterior coxal cavities are open behind.

The distribution of the genera of this family is very remarkable. Of those without wings scarcely any are common to the two continents. With the exception of three, they are not represented in North America, east of the longitude of the mouth of the Platte or Nebraska River; from that point they increase in number of genera, species, and individuals, until, in California, they form the characteristic feature of the insect fauna.

The representation of genera on this continent being thus imperfect, the characters given in the short synoptic tables will not always enable our genera to be distinguished from those of other countries. The student, for such purpose, must consult Lacordaire's genera des Coléoptères, vol. 5, a work not less admirable for the wonderful industry displayed in it, than for being the first successful effort towards a rational classification of this most difficult family. The recognition of the value of the form of the middle coxe, and the vestiture of the tarsi in establishing natural divisions and tribes, we owe to his acute observation.

By combining with these characters another not before observed,

derived from the 3d and 4th ventral segments, this family may, in my opinion, be properly divided into three sub-families:\*—

Ventral segments entirely corneous;

Middle coxe without trochantin.

TENTYRIIDÆ.
ASIDIDÆ.

Middle coxe with distinct trochantin.

Ventral segments 3 and 4 with the hind margin coriaceous.

Tenebrionidæ.

## Sub-Family I.—TENTYRIIDAE.

The species of this sub-family are distinguished by the middle coxæ being entirely inclosed by the sterna, without any trochantin; the side pieces of the mesothorax consequently do not extend to the coxal cavities; the ventral segments are entirely corneous, the 3d and 4th having no vestige of a posterior coriaceous margin. Besides these two distinguishing characters, common to all the tribes, there are others worthy of notice, which belong to individual tribes, and are not found to recur in the other two sub-families.

The species, with the exception of Epitragini and a few Thinobatini, are apterous, and the metasternum is very short, except in the winged species. In Zopherini the eyes are very finely granulated, a singular exception in this family. The mentum is frequently very large, so as to fill entirely the gular cavity, and to cover completely the maxillæ and ligula, so that the gular process usually supporting it ceases to exist. This character recurs again only in certain Asidini of the next sub-family. The tarsi are sometimes spinous, sometimes pubescent beneath. The front is frequently trilobed.

The tribes represented in our fauna are as follows:-

Mentum concealing both maxille and ligula;

 ${\bf E}{\bf p}{\bf i}{\bf s}{\bf t}{\bf r}{\bf n}{\bf a}$  of metathorax very wide; front trilobed.

I. Epiphysini.

Episterna of metathorax narrow;

Pro- and mesosternum not articulating together;

Front lobed, body apterous.

II. GNATHOSIINI.

Front not lobed, body sometimes winged.

III. THINOBATINI.

<sup>\*</sup> Two described insects cannot be placed in the arrangement of this family, from want of sufficient knowledge of their characters. The first, Dysmathes Suhlbergii Mann. Bull. Mosc. 1853, ii. 265, is said to be similar in form to Nyetelia, but to have antenne like Gnathosia; the form of mentum, if known, would determine its position. The second is Pedinus suturalis Say, Journ. Ac. Nat. Sc. Phil., iii. 263, which has not been identified in recent times.

Mesosternum emarginate, receiving the prosternum, body winged.

IV. EPITRAGINI.

Mentum large, concealing either the ligula or maxillæ, never both; (Episterna of metathorax narrow in our tribes;)

Tibial spurs distinct.

V. Anepsiini.

Tibial spurs very minute;

Eyes very finely granulated.

VI. ZOPHERINI.

Eyes coarsely granulated, head constricted behind;

Anterior coxæ contiguous; antennæ 10-jointed.

VII. DACODERINI.

Anterior coxæ separated; antennæ 11-jointed. VIII. Stenosini. Mentum small, maxillæ and ligula both exposed;

Prothorax globose, not margined; mesothorax pedunculated.

IX. APOCRYPHINI.

## Tribe I.—EPIPHYSINI.

Body short, convex, apterous; epistoma trilobed, labrum prominent; mentum very large, entirely filling the gular cavity; ligula and maxillæ concealed; thorax very short, anterior angles acute, prominent; elytra globose, sides embracing widely the flanks, epipleuræ narrow; anterior coxæ widely separated, prosternum closely fitting to the mesosternum; hind coxæ transverse, widely separated. Tarsi ciliate beneath.

This tribe contains but two genera, each characterizing a separate group. Epiphysa, with short tarsi and glabrous body, is found at the Cape of Good Hope. Edrotes, with slender tarsi and sparsely clothed with long hairs, contains two species: one (E. rotundus) found on the eastern slope of the Rocky Mountains; the other (E. ventricosus Lec.) in the Colorado valley, California.

#### Tribe II.-GNATHOSHNI.

Body variable in form, apterous; epistoma trilobed in our genera, but with at least a prominent middle lobe, always leaving the base of the mandibles exposed; labrum prominent; mentum very large, entirely filling the gular cavity; ligula and maxillæ concealed; elytra widely embracing the flanks of the abdomen, or not; prosternum not adapted to the mesosternum. Tarsi (of the genera of America) with rigid hairs beneath.

The sixth tribe of Lacordaire, Tentyrides, appears to me to be capable of a natural division into two, according as the epistoma is lobed or not. The limits of these tribes seem, as far as I have been able to refer to foreign genera, to be well defined.

Our genera may be arranged—

Middle lobe of epistoma rounded; mandibles toothed above; eyes rounded. TRIOROPHUS.

Middle lobe of epistoma truncate; mandibles not toothed;

Hind coxæ widely separated; eyes subtransverse.

CRANIOTUS. Hind coxe approximate; eyes emarginate. TRIMYTIS.

Triorophus contains four species; three from California, and one from Texas. Craniotus is found in the interior of California. Trimytis in New Mexico and Nebraska. All are found on the ground, under stones, &c. The intercoxal process of the abdomen is parallel in the first two genera, but triangular and acute in Trimytis. Each genus may be considered as representing a separate group.

### Tribe III.—THINOBATINI.

Body oval or rounded, sometimes winged; epistoma truncate, or feebly rounded; labrum prominent, or not; mentum very large, entirely filling the gular cavity; ligula and maxille concealed; elytra not widely embracing the flanks of the abdomen; prosternum not adapted to the mesosternum; metasternum sometimes elongated; middle coxe without trochantin, inclosed by the sterna; hind coxe approximate, intercoxal process of the abdomen acute. Tarsi ciliate beneath.

Although the unique specimens of Cryptadius and Auchmobius have been lost, I am quite certain about the position of these genera.

Our genera may be thus tabulated :-

Eyes with distinct superciliary ridges;

Anterior tibiæ with the onter angle prolonged;

Body inflated.

Body elongate oval.

Anterior tibiæ truncate at tip.

EURYMETOPON. EMMENASTUS.

CRYPTADIUS.

Eyes without superciliary ridges, anterior tibiæ truncate. AUCHMOBIUS.

In some individuals, both of Eurymetopon and Emmenastus, the labrum is retracted and almost concealed under the epistoma. In both genera are species with and without wings; in the former case the metasternum is longer than the first ventral segment.

To Emmenastus I would refer Eurymetopon longulum, obesum, and atrum Lee. All the species of this tribe are Californian, except a few Emmenastus from Nebraska, New Mexico, and Texas. The winged species are found under bark of Prosopis, the others under stones.

### Tribe IV .- EPITRAGINI.

Body oval, winged; epistoma trilobed (in our species); labrum prominent; mentum very large, entirely filling the gular cavity; ligula and maxillæ concealed; elytra with narrow epipleuræ; prosternum (in our species) prolonged and pointed, fitting into the deeply emarginate mesosternum; metasternum long, with narrow side pieces; middle coxæ without trochantin, inclosed by the sterna; hind coxæ approximate, intercoxal process of the abdomen acute; tarsi pubescent beneath.

Our species are few in number, and belong to Epitragus; they are found on tall grass, in moist places. None have yet occurred in the Pacific district. *E. canaliculatus* Say, is remarkable for the thorax of the male having a broad, dorsal groove, limited by elevated ridges.

The characters here given do not apply to the tribe as received by Lacordaire, which might probably with advantage be divided.

#### Tribe V.—ANEPSHNI.

Body elongate oval, apterous, sparsely hairy; head received in the thorax as far as the eyes, which are almost divided, small and coarsely granulated; front dilated at the sides over the base of the mandibles, submarginate anteriorly, partly covering the labrum; mentum large, flat; maxillæ exposed, ligula concealed; gular peduncle broad, distinct; palpi not dilated; antennæ 11-jointed, very slightly thickened externally; thorax not applied closely to the trunk; metasternum with narrow episterna; middle coxæ surrounded by the sterna, without trochantin; hind coxæ not widely separated, intercoxal process of abdomen triangular; legs short, tibial spurs distinct, especially the anterior ones, anterior tibiæ strongly dilated and compressed; tarsi short, with small spines beneath.

Three small species, from the Colorado Desert, constitute this tribe. Anepsius was placed by Lacordaire with the Ulomini, from which it differs not only by the larger mentum and concealed ligula, but by the absence of any coriaceous margin on the third and fourth ventral segments.

The two genera are distinguished as follows:—

Antennæ slender, gradually thickened externally.

Antennæ short, four last joints slightly but suddenly larger.

BATULIUS.

### Tribe VI.-ZOPHERINI.

Body elongate, apterous, rough, covered with elevations; epistoma truncate or broadly emarginate; labrum uncovered; mentum large, leaving the base of the maxillæ and sometimes the ligula exposed, inserted upon a very broad, short, gular process; head received by the prothorax as far as the eyes, which are very transverse and very finely granulated; antennæ with the outer two or three joints usually connate, elytra but feebly embracing the flanks, without distinctly defined epipleuræ. Metasternum short, with narrow side pieces; middle coxæ without trochantin, inclosed by the sterna. Anterior and hind coxæ very widely separated; intercoxal process of the abdomen broad, rectangular; tibial spurs very small, or wanting.

Our genera are as follows:-

Tarsi sulcate beneath; ligula concealed;

Antennæ received in very deep grooves;

Joints of antennæ 9—11 connate, truncate at tip. Zopherus.

Joints of antennæ 10—11 connate, pointed at tip. Phlæodes.

Antennal cavities obsolete behind, antennæ as in Phlæodes. Noserus. Tarsi not sulcate beneath; ligula prominent; antennæ not received in cavities;

Antennæ 11-jointed, 10th joint wider than the 9th and 11th.

PHELLOPSIS.

Zopherus occurs in Texas, New Mexico, and Colorado Desert. To Phlæodes belong Nosoderma diabolicum and pustulosum Lec., found in California; the genus is indicated but not named by Lacordaire. The type of Noserus is the Californian Nosoderma plicatum Lec. To Phellopsis belong Boletophagus obcordatus Kirby, from Canada and New England, and Nosoderma porcatum Lec., from Oregon.

The genus Nosoderma does not occur in our territory; it differs from Phellopsis by the antennæ having the 10th and 11th joints connate into a rounded mass.

#### Tribe VII.-DACODERINI.

This tribe contains but a single species *Dacoderus striaticeps* Lec., a singular insect, of small size, found under bark, at the junction of the Colorado and Gila Rivers.

Body elongate, not convex, apterous; head constricted behind into a narrow neck; eyes coarsely granulated, oval; mentum

large, lunate, filling the gular cavity, and covering the base of the maxillæ, ligula prominent; antennæ 10-jointed, thick, joints rounded, equal; anterior coxæ contiguous, their cavities confluent, though closed behind;\* middle coxæ without trochantin, entirely inclosed by the sterna; hind coxæ widely separated, intercoxal process of the abdomen obtuse, first ventral segment elongated; elytra embracing but slightly the flanks of the abdomen, epipleuræ narrow. Legs moderately short, tibial spurs scarcely distinct, tarsi pubescent. Side pieces of metasternum very narrow.

The elytra are shining and coarsely punctured, the thorax elongated, constricted at the middle, with a convex lateral tubercle just in the constriction.

#### Tribe VIII.—STENOSINI.

Body slender, apterous; head constricted behind into a neck; labrum covered by the epistoma; mentum large, inserted upon a gular peduncle; maxillae exposed, ligula slightly prominent; eyes variable in form, coarsely granulated; antennæ 11-jointed; elytra embracing but slightly the flanks of the abdomen; anterior coxæ moderately separated; middle coxæ without trochantin, inclosed by the sterna; hind coxæ moderately distant; legs feeble, tibial spurs obsolete, tarsi ciliate. Side pieces of metasternum narrow.

Of this tribe but a single representative Aræoschizus costipennis Lec., is known from our territory; it is found on the borders of the Colorado Desert.

Aræoschizus is distinguished from foreign genera by the eyes being not divided, but very small and linear, situated on the upper surface of the head, between the margin and an elevated line; by the 11th joint of the thick antennæ, being small and partly received by the 10th; and by the thorax being long and feebly convex, not costate on the disk.

#### Tribe IX.-APOCRYPHINI.

Body slender, apterous; head not constricted behind; labrum prominent; eyes small, emarginate, coarsely granulated; mentum small, inserted upon a gular peduncle; maxillæ and ligula exposed; last joint of palpi strongly securiform; antennæ 11-jointed, slender, scarcely thickened externally; prothorax globose, flanks not separated from the sides; trunk pedunculated; elytra em-

<sup>\*</sup> This character is known in no other Tenebrionide.

bracing widely the flanks of the abdomen; epipleuræ narrow. Anterior coxæ moderately separated; middle coxæ inclosed by the sterna, without trochantin; hind coxæ small, widely separated; legs long, thighs clavate; tibiæ slender, with very small spurs; tarsi pubescent, with long hairs.

This tribe consists of a single genus, Apocrypha, of which two species from California are known; they are about one-tenth of an inch long, and resemble in form certain Dyschirius of the family Carabidæ; the thorax is globose, and densely punctured; the elytra are sparsely punctured, with a few erect, long hairs; the whole body is sparsely pubescent; they are found on the ground, and are rare.

The genus Cononotus, formerly regarded by me as allied to Apocrypha, does not belong to this family.

The present tribe is considered by Lacordaire as being a group of the tribe Helopini; the absence of the membranous posterior margin to the third and fourth ventral segments, which is so evident in Helopini and all the allied tribes, induces me to remove it from the association in which it was placed to Lacordaire.

At the same time it must be said that the observation of such characters, as are relied on for the classification of this family, is sometimes very difficult in small species, unless specimens may be submitted to dissection; but whatever may be the affinities of Apocrypha, its claim to rank as a distinct tribe cannot be controverted.

# Sub-Family II.—ASIDIDAE.

In this sub-family the middle coxe are contained in cavities which are open externally, so as to enable the epimera of the mesosternum to reach the cavities; there is also a distinct trochantin visible in the space thus formed. To these characteristics it may be added that the gular peduncle, for the support of the mentum, is visible, except in a few Asidini; the mesosternum is always very short, and the wings are wanting; the tarsi are always channelled beneath, spinous or setose along the margin, almost never pubescent. The species are all found walking on the ground in desert regions. Our tribes are only the following:—

Labrum partly covered by the front.

Labrum prominent:

Mentum large, ligula partly concealed.

II. ASIDINI.

Mentum small, ligula entirely exposed, lunate; Gula with a short medial fissure. III. BRANCHINI. Gula without fissure; intercoxal process of abdomen acute.

IV. Coniontini.

In a natural arrangement the last tribe will probably take place as a sub-tribe of Praocini, distinguished from the genuine Praocini by the form of the intercoxal process of the abdomen, which is broad in them. The genuine Praocini do not, however, appear in our fauna, and any discussion of the question would be, at present, irrelevant.

#### Tribe I.—CRYPTOGLOSSINI.

Body elongate, apterous; head rarely deflexed, usually prominent, oval, and gradually narrowed behind the eyes, which are small, transverse, and reniform, coarsely or moderately finely granulated; labrum entirely or partly covered by the epistoma; mentum moderately large, inserted upon a broad gular peduncle; maxillæ exposed, ligula not prominent; elytra with moderate epipleuræ, not very widely embracing the flanks of the abdomen, middle coxe with distinct trochantin, side pieces reaching the coxal cavities; hind coxæ distant, intercoxal process truncate; legs moderate or stout; tibial spurs distinct.

I have removed from this tribe the genera Eulabis, Epantius, and Cerenopus, included in it by Lacordaire, since they have the hind margin of the 3d and 4th ventral segments coriaceous.

Our genera indicate two sub-tribes, so distinct that they should probably rank as separate tribes.

Genæ prominent; tarsi pubescent. Genæ not produced; tarsi setose.

NYCTOPORINI. CRYPTOGLOSSINI.

#### Sub-Tribe I.-Nyctoporini.

This sub-tribe consists of but a single Californian genus, Nyetoporis, found under bark. The body is elongate and rough, the elytra are sculptured with numerous rows of acute elevations, and frequently costate; the epipleuræ occupy the whole of the inflexed portion of the elytra. The mentum is large, quadrate, and transverse, the gular peduncle is almost wanting, the sides of the head beneath are prolonged so as almost to touch the sides of the mentum, thus covering the maxillæ except at the base, where they are visible; the last joint of the palpi is but slightly dilated; the front is dilated, concealing the labrum. The side pieces of the metasternum are narrow; the 2d and 3d ventral segments are scarcely emarginate. The legs are moderate, the tibial spurs are small, and the tarsi are pubescent.

# Sub-Tribe II.—Cryptoglossini.

Body oblong, with variable sculpture; the epipleuræ occupy only a portion of the inflexed portion of the elytra, which is wider than in the preceding sub-tribe; the mentum is moderately large, oval, and flat, in our genera, and the sides of the head are not prolonged beneath; the gular peduncle is distinct; the last joint of the palpi is slender or slightly dilated; labrum almost entirely concealed by the dilated front. The side pieces of the metasternum are tolerably wide; some of the ventral segments are strongly emarginate behind. Legs long and stout, tibial spurs not small, tarsi spinous beneath.

Our genera belong to the group Centriopteræ, distinguished by the mesosternum being prominent.

Mesosternum perpendicular in front; last joint of antennæ oval, acute, not smaller than the preceding.

Mesosternum broadly concave;

Last joint of antennæ oval, very little smaller than the 10th.

OOCHILA.

Last joint of antennæ truncate, one-half smaller than the 10th.

CRYPTOGLOSSA.

Centrioptera differs besides from the other genera by the hind thighs being roughened with little teeth. The type of Oochila is Asbolus? infaustus Lec. from Texas; Asbolus Lec. is synonymous with Cryptoglossa Sol.; Centrioptera is found in California, Cryptoglossa in Arizona and Utah.

#### Tribe II.-ASIDINI.

Body ovate, apterous; head scarcely narrowed behind the eyes, which are transverse, reniform, and moderately finely granulated; epistoma very short, not covering the base of the mandibles; labrum prominent; mentum large, either filling entirely the gular cavity or inserted upon a very short and wide peduncle, and thus leaving the base of the maxillæ exposed; in either case a space permits the lateral play of the palpi, the last joint of which is large and securiform; antennæ (11-jointed in our genera) with

the 11th joint smaller than the 10th; elytra embracing widely the flanks of the abdomen (except in Microschatia); epipleuræ indistinct, middle coxæ with distinct trochantin, side pieces of mesothorax scarcely reaching the cavitics; metasternum very short, with the episterna wide, and epimera not visible; hind coxæ moderately separated; intercoxal process of abdomen obtuse; 4th and 5th ventral segments somewhat prolonged behind at the sides. Legs moderate, tibial spurs distinct; tarsi setose, but not sulcate beneath. Front transversely impressed in all the species known to me.

The shortness of the middle of the front, and the exposed base of the mandibles give a somewhat trilobed anterior outline, thus recalling for the last time, though feebly, the form seen in some of the earlier tribes of the family; the large size of the mentum is another reminiscence of the tribes alluded to, and this affinity is still more strongly indicated in the foreign genus Machla, which, while placed by Lacordaire in the present tribe, is remarkable for having the middle coxæ without trochantin and entirely inclosed by the sterna. Instances like the one here given show the impossibility of exhibiting even the most important affinities in a linear arrangement of a family constituted, like the present, of a very large number of tribes of equal value.

Our genera are :-

Mentum filling the gular cavity;

Last joint of maxillary palpi moderate; mentum and mandibles approximate, leaving room only for the palpi;

Inflexed portion of elytra narrow.

MICROSCHATIA.

Inflexed portion elytra wide;

Prosternum prominent, ant. tibiæ with the outer angle prolonged.

ASTROTUS.

Prosternum not prominent; anterior tibiæ truncate. Ologlyptus.

Last joint of maxillary palpi very large; mentum and mandibles separated by a wide space.

Pelecyphorus.

Mentum inserted upon a broad peduncle, lateral fissures distinct; last joint of maxillary palpi very large;

Posterior angles of thorax distinct.

ASIDA.

Posterior angles of thorax obtuse or rounded.

EUSCHIDES.

The last two genera do not seem to be separated by any distinct characters: by combining them Asida would become protean in form like Pelecyphorus and Eleodes.

The genera Microschatia, Pelecyphorus, and Euschides, occur from Kansas to the Pacific coast; Astrotus is found in Texas;

Ologlyptus (Pactostoma Lec.) and Asida in Kansas and New Mexico.

Philolithus Lac. I have not adopted as it seems to merge imperceptibly into Pelecyphorus.

### Tribe III.—BRANCHINI.

Body oval, moderately convex, apterous; head flat, received in the thorax as far as the eyes, which are transverse and moderately coarsely granulated; epistoma emarginate in the middle. feebly trilobed (as in Asida), covering the base of mandibles; frontal suture indistinct; labrum prominent, emarginate; antennæ slender, 11-jointed, outer points broader; mentum moderate, trapeziform, emarginate in front, inserted upon a gular peduncle which is distinctly fissured at the middle owing to the coalescence of the gular sutures; maxillæ exposed, palpi very slightly dilated; ligula moderately prominent, emarginate. thorax bisinuate at base, hind angles slightly prolonged, embracing the humeri; elytra embracing widely the flanks of the abdomen; epipleuræ narrow, suddenly dilated at the base; anterior coxæ subtransverse, middle coxe with distinct trochantin, side pieces attaining the coxal cavities; metasternum short, episterna wide, epimera distinct; hind coxe separated, intercoxal process of abdomen truncate; tibial spurs distinct, tarsi setose beneath.

I have separated as a distinct tribe a new genus Branchus, which seems to combine characters belonging to the South American tribes Nycteliini and Praocini. With the former it possesses the medial gular fissure, with the latter the prominent emarginate ligula; the epipleuræ are suddenly dilated at the base in all three.

The species of Branchus somewhat resemble in form Opatrum, and are opaque, coarsely punctured, and slightly pubescent; on the elytra are rows of vagne foveæ as in Discodemus, but more strongly marked. They are known to me from Nicaragua, Island of New Providence (Bahama), and Florida. A species from Honduras differs from the others by its anterior tibiæ being truncate, and will, therefore, constitute a distinct genus; in form it resembles a broad Asida rather than Opatrum; the tibiæ of the other species are prolonged at the outer angle, though less so than in Eusattus and allied genera of Coniontini. So far as I know, none of the species of this tribe are described. The species from Florida, '61 unc. long, with the thorax strongly narrowed in

front and rounded on the sides, coarsely punctured, with a faint smooth dorsal line, and the elytra with faint costae between the rows of irregular foveæ, may be called *Branchus floridanus*.

#### Tribe IV.—CONIONTINI.

Body oval or globose, apterous; epistoma covering the base of the mandibles; labrum prominent; mentum moderate, emarginate; gular peduncle short or almost obsolete; ligula prominent, emarginate; maxillæ exposed; eyes transverse, small, moderately coarsely granulated; elytra usually with narrow epipleuræ; anterior coxæ subtransverse; middle coxæ with distinct trochantin, side pieces of mesothorax attaining the coxal cavities; metasternum very short, episterna wide, epimera visible; hind coxæ approximate; intercoxal process of abdomen acute; tibial spurs long, tarsi spinous beneath; the first joint of hind tarsi very long.

Antennæ very short; 1st joint of anterior tarsi prolonged into a large spine.

Coelus.

Antennæ long; tarsi simple;

Anterior tibiæ with the outer angle much prolonged;

Inflexed portion of elytra wide;

Epipleuræ suddenly dilated at the base.

DISCODEMUS.

Epipleuræ gradually wider in front.

Eusattus.

Inflexed portion of elytra narrow, limited by epipleural margin.

CONTRINTS

Anterior tibia truncate at hip; inflexed portion of elytra narrow.

CONIONTIS.

Cœlus contains two species found on the California seashore. Discodemus is founded upon Zophosis reticulata Say., from Kansas and Arizona, and Conipinus upon Eusattus dubius and productus Lee., from Arizona; Eusattus is distributed from Kansas to Texas, California, and Oregon. Coniontis contains several Californian species, one from Oregon and one from Kansas. These insects are all found under stones, &c. on the ground.

# Sub-Family III.—TENEBRIONIDAE (genuini).

In this sub-family the posterior margin of the third and fourth ventral segments is coriaceous; the middle coxe are usually provided with a distinct trochantin, and their cavities extend outwards to reach the epimera; sometimes (Ulomini) the trochantin is absent, but in these cases it appears to me rather to be united with the mesosternum, than to be absolutely wanting, as in the first sub-family; the middle coxe are in no case so closely embraced by the sterna as in the Tentyriidæ. The body is more frequently winged than apterous, and, consequently, the metasternum is more frequently long than short; the mentum is small, or, at most, moderate in size, and does not conceal either ligula or maxillæ; the gular peduncle is always distinct. The anterior coxæ are sometimes oval or subtransverse, a character not seen in the other two sub-families; equally peculiar to this sub-family is the short, coriaceous clypeus seen between the front and labrum in certain tribes. It is here too that the first instances occur of genera with entire mandibles. The tarsi are pubescent beneath, sometimes silky, very rarely spinous or setose.

A large number of the species are found under bark; the first four tribes are, however, found on the ground.

Our tribes may be separated as follows:-

Elytra embracing widely the flanks of the abdomen. I. BLAPTINI.

Elytra not embracing widely the flanks of the abdomen;

Front entirely corneous, articulating directly with the labrum; clypeus not visible;

Middle and hind legs not fossorial;

Front broadly dilated at the sides, emarginate anteriorly;

Anterior tarsi of male dilated. II. Pedinini.

Anterior tarsi of male not dilated. III. OPATRINI.

Front moderately dilated at the sides, not emarginate anteriorly;

Anterior coxæ rounded; trochantin of middle coxæ distinct;

Tarsi spinous or setose beneath. IV. Scaurini.

Tarsi pubescent;

Penultimate joint of tarsi entire. V. Tenebrionini.
Penultimate joint of tarsi lobed. VI. Heterotarsini.

Anterior coxe subtransverse, trochantin of middle coxe obsolete.

VII. ULOMINI.

Legs all fossorial. VIII. Trachyscelini.

Front partly coriaceous, or separated from the labrum by a short coriaceous clypeus;

Tarsi spinous or setose beneath;

Anterior tibiæ dilated. IX. Phalerini.

Anterior tibiæ not dilated. X. CRYPTICINI.

Tarsi pubescent; anterior coxæ subtransverse,

Genæ sulcate for the base of the antennæ. XI. Boletophagini.
Genæ not sulcate. XII. Diaperini.

Tarsi pubescent, anterior coxæ rounded;

Antennal ridges on the same plane as the front; (clypeus distinct);
Middle coxe without trochantin. XIII. ADELININI.

Middle coxe with distinct trochantin. XIV. Helopini.

Antennal ridges obliquely elevated; (anterior part of front coriaceous, but not separate as a clypeus);

Metasternum short. Metasternum long. XV. MERACANTHINI. XVI. STRONGYLIINI.

It will be observed by the general student that the above-mentioned tribes, with various foreign ones not represented in our fauna, fall into three natural divisions: 1. Blaptoides, having the flanks of the abdomen widely embraced by the elytra, and the elypeus absent; important foreign tribes of this division are typified by Pimelia and Scotobius. 2. Tenebrioides, having the inflexed portion of the elytra narrow, and the elypeus absent, containing in our fauna tribes II—VIII. 3. Helopoides, having the inflexed portion of the elytra narrow, and a distinct, coriaceous elypeus between the front (or epistoma) and the labrum; this division includes the remaining tribes.

## Tribe I.—BLAPTINI.

Body oblong, rarely oval, apterous; head prominent, slightly narrowed behind the eyes; epistoma covering the base of the mandibles at the sides; labrum prominent; mentum small, inserted upon a gular pedunele; maxillae exposed; ligula partly concealed; maxillary palpi with the last joint securiform, not very large; eyes transverse, reniform, tolerably finely granulated; antennæ 11-jointed, with the outer joints rounded, equal; elytra embracing widely the flanks of the abdomen, epipleuræ narrow; middle coxæ with large trochantin, side pieces attaining the coxal cavities; metasternum very short, episterna narrow, epimera quite distinct; hind coxæ widely separated; intercoxal process of abdomen rectangular; third and fourth ventral segments not prolonged behind at the margin. Legs long; anterior femora frequently toothed; tibial spurs distinct; tarsi channelled and setose beneath.

In all of the genera found in our territory the mentum is trilobed, the middle lobe projecting over the ligula, and the lateral ones frequently bent inwards, so as to become searcely visible. Another character common to all our genera is that only the joints 9—11 of the antennæ are rounded.

Our genera are but three, each representing a separate group Flanks of elytra not acutely margined;

ELEODES. Flanks of elytra acutely margined;

Anterior tarsi of male not dilated; humeri of elytra not embracing the thorax.

Embaphion.

Anterior tarsi of male with joints 1—2 slightly dilated, spongy beneath; humeri of elytra embracing the base of thorax. Promus.

The species of Eleodes are very numerous, and are found from the longitude of Platte River to the Pacific. Embaphion contains four species, found in Texas, Kansas, and Arizona. E. muricatum and concavum are of an elliptical form, with widely reflexed margin; E. contusum has the thorax distant from the elytra, its margins are still widely reflexed; in E. depressum (Eleodes depressa Lec.) the thorax is also distant from the elytra, but the margin is narrow and not reflexed, thus establishing a passage to Eleodes.

The type and only species of Promus is Blaps opaca Say, a very abundant insect on the plains east of the Rocky Mountains.

### Tribe II.-PEDININI.

Body oval, not very convex; epistoma emarginate, covering the base of the mandibles; labrum prominent; mentum frequently trilobed in front, small or moderate in size; gular peduncle distinct; ligula prominent, entire or slightly sinuate in front; eyes transverse, sometimes divided; elytra embracing feebly the flanks of the abdomen; epipleuræ narrow; anterior coxæ subtransverse; middle coxæ with distinct trochantin, side pieces of mesothorax extending to the coxal cavities; metasternum very short, epimera distinct; hind coxæ distant; intercoxal process of abdomen truncate; tibial spurs small, distinct; anterior, and sometimes the middle tarsi of the male dilated, and spongy beneath; hind tarsi sometimes pubescent, sometimes spinous.

Two groups occur in our fauna:-

Eyes not divided. Eyes completely divided. PLATYNOTI.
BLAPSTINI.

## Group I.-Platynoti.

This group, distinguished by the epistoma being emarginate, and the eyes not entirely divided, is represented in our fauna by only a few species of Opatrinus from the Atlantic district. Opatrinus is distinguished from foreign genera of the same group by the thorax being sinuate at base, and by the inflexed portion of the elytra being formed entirely of the epipleure; the mentum is trilobed in front, and the anterior tibiæ are not dilated.

### Group II.-Blapstini.

In this group the eyes are completely divided; the epistoma is emarginate, and the inflexed part of the elytra is composed entirely of the epipleuræ; the mentum is not trilobed in front. In Notibius and Conibius the dilatation of the anterior tarsi of the male is very feeble, but in the genus last named the anterior tibiæ of that sex are bent and armed with a tooth, on the inner face, near the base.

Intercoxal process of abdomen short, triangular; Superior portion of eyes large, rounded. Superior portion of eyes small, linear. Intercoxal process of abdomen broad, rectangular; Superior portion of eyes small, rounded.

BLAPSTINUS. Conibius.

Notibius.

Blapstinus contains many species, and is found in every part of our territory; Conibius and Notibius occur only in California.

#### Tribe III. - OPATRINI.

Body oval, not convex; head received by the thorax as far as the eyes, which are transverse, strongly emarginate, and coarsely granulated; epistoma emarginate, covering the base of the mandibles; labrum prominent; mentum small, inserted upon a distinct gular peduncle; ligula prominent, not deeply emarginate; maxillæ exposed; clytra with not very wide epipleuræ, occupying the whole of the inflexed portion. Anterior coxæ subtransverse or rounded; middle coxæ with distinct trochantin, side pieces attaining the cavities; hind coxæ distant; intercoxal process truncate or acute; legs moderately stont, front tibiæ dilated in our genera; tibial spurs small; tarsi setose beneath. Metasternum with narrow episterna and distinct epimera. Hind margin of third and fourth ventral segments subcoriaceous.

The above definition applies not to the whole tribe, but rather to our genera, which are but two in number, each represented by a single species from the Northern Atlantic States, found near the sea-shore. Both belong to the group Stizopodes, which is distinguished by the last joint of the palpi being securiform; the anterior tibia dilated; the epipleuræ not reaching the tip of the elytra. Ammodonus fossor Muls. (Opatrum f. Lec.) has the wings well developed; Ephalus latimanus (Heliopates l. Lec.) is apterous; in the latter the antennae are very short.

Anterior tibiæ slightly dilated, with the outer angle very much prolonged; intercoxal process of abdomen acute.

Ammodonus.

Anterior tibiæ very broad, triangular, outer angle slightly prolonged; intercoxal process truncate. Ephalus.

#### Tribe IV .- SCAURINI.

Body elongate, apterous; head prolonged behind the eyes, which are small, transverse, reniform, and coarsely granulated; front dilated at the sides and anteriorly; labrum covered; mentum small, with small inflexed lateral lobes; ligula prominent; gular peduncle distinct; palpi with the last joint dilated, triangular; antennæ 11-jointed, outer joints broader, rounded, sub-Elytra not embracing widely the flanks of the abtransverse. domen; epipleuræ narrow, reaching the tip of the elytra; mesosternum very short, side pieces narrow; epimera distinct. margin of third and fourth ventral segments subcoriaceous; third and fourth ventral sutures deeply impressed, the corresponding segments scarcely emarginate in Eulabis and Apsena, deeply emarginate in Cerenopus. Anterior coxæ rounded; middle coxe with distinct trochantin; hind coxe oval, very widely separated; legs moderate and simple (Eulabis), or long, variously toothed (Cerenopus); tibial spurs distinct or large; tarsi spinous Scutellum broad, not penetrating between the elytra.

But three genera represent this tribe in our fauna; they differ from all the neighboring tribes of the present sub-family by the tarsi being clothed beneath with spines instead of hair.

The genera may be distinguished as follows:—
Head short, legs simple;

Mentum with a sudden elevation at the middle (body glabrous).

EULABIS.
APSENA.

Mentum nearly flat; body slightly pubescent.

Apsena.

Head long; legs of 3 toothed; mentum nearly flat.

Cerenopus.

The last genus inhabits Arizona, Texas, and the Colorado Desert; in the males the anterior tibiæ are serrate internally, and the hind femora are armed with several small teeth. The other two genera are found in California; Epantius Lec. does not appear to be sufficiently distinct from Eulabis, but, on the other hand, Eulabis pubescens Lec., the type of Apsena, while having the form and sculpture of one of the species of Eulabis (E. rufipes), has the mentum as in Cerenopus, that is, nearly flat, with two impressions, separated by a faint medial elevation.

#### Tribe V.-TENEBRIONINI.

Body moderately elongated, apterous, or winged; head prolonged, but scarcely narrowed behind, not received in the thorax as far as the eyes, which are transverse and emarginate, moderately finely granulated; front dilated on the sides, covering the base of the mandibles; epistoma truncate or slightly emarginate, not separated from the labrum by a clypeus; antennæ 11-jointed, gradually thickened externally; mentum small, partly concealing the ligula, inserted upon a gular peduncle; elytra embracing feebly the flanks of the abdomen; epipleuræ narrow. Anterior eoxæ globose; middle coxæ with distinct trochantin; legs long; tibial spurs small; tarsi clothed beneath with silky, golden pubescence, or with ordinary coarse pubescence. Hind margin of third and fourth ventral segments subcoriaceous.

This tribe embraces the Cœlometopides of Lacordaire, with a portion of his Tenebrionides; the vestiture of the tarsi appears to me to be of more structural importance than the length of the metasternum, by which merely apterous and winged species are distinguished. The affinity pointed out between some of the genera and the tribe Scaurini is very strong, and I am somewhat in doubt whether Polypleurus would not be equally well placed in the preceding tribe.

The genera may be divided into three groups:—

Tarsi silky pubescent beneath;

Epipleura not narrowed towards the apex of the elytra. Polypleuri. Epipleura gradually narrowed towards the apex of the elytra. Upes. Tarsi coarsely pubescent beneath.

# Group I.-Polypleuri.

The genus Polypleurus, consisting of three species, found under stones in the Atlantic States, is alone contained in this group.

The hind coxe are widely distant, the legs slender; the tarsi are silky pubescent beneath; the metasternum is very short, and the epipleuræ extend to the extreme tip of the elytra, and are not narrower there than at the middle. The body is clongate ovate in form, the thorax and elytra closely fitting together, the latter with rows of distant foveæ, the alternate spaces being slightly raised. The labrum and ligula are less prominent than in the other genera of the tribe; the mentum is subtrilobed, the middle lobe wide, the lateral ones small and inflexed.

The two species found in the Middle and Southern States are dull, opaque black. The genus has been recently increased by a larger (.65 inch) shining black species from Florida, P. nitidus Lec., in which the large punctures of the elytra are arranged in regular rows, and the intervals are not elevated. It also differs from the other two species by the outer joints of the antennæ not being transverse, and by the labrum being more prominent; the latter is possibly an accidental character, as I have observed in Cibdelis, Eurymetopon, and other genera of various tribes, that the labrum is capable of protrusion and retraction to a limited degree.

## Group II .- Upes.

In this group the hind coxe vary in position; the metasternum in the apterous species is very short, but in the winged ones long; the epipleuræ do not reach the tip of the elytra in most of the genera. and in others they are gradually narrowed, barely reaching the tip.

These species are found under bark of dead trees. Our genera are as follows:-

Epipleuræ not attaining the tip of the elytra;

Tibiæ grooved on the inner face; (metasternum short). CŒLOCNEMIS.

Tibiæ not grooved on the inner face;

Mentum flat, rounded in front; (metasternum short). CIBDELIS.

Mentum generally convex, subtrilobate or broadly emarginate; Gula sulcate transversely; (metasternum short). SCOTOBÆNUS.

Gula not sulcate;

Margin of front reflexed. CENTRONOPUS.

Margin of front not reflexed; (metasternum long);

Thighs very thick, clavate;

Mentum prominent at the middle.

MERINUS. Mentum broadly emarginate. PACHYURGUS.

Thighs slender, or slightly thickened;

Mentum flat, broadly emarginate in front; hind tarsi long.

XYLOPINUS.

Mentum slightly convex, almost truncate in front; hind tarsi short. HAPLANDRUS.

Mentum prominent at the middle, strongly trilobed; hind tarsi

Epipleuræ reaching the tip of the elytra; metasternum long; hind tarsi

Head with a deep postocular furrow;

Mentum prominent at the middle.

GLYPTOTUS.

Head not grooved behind the eyes;

Mentum flat, lateral lobes small, inflexed.

NYCTOBATES. IPHTHIMUS.

Mentum flat, lateral lobes wanting.

Of these genera Cæloenemis, Cibdelis, and Scotobænus are Californian; Centronopus contains two species, C. opacus Lee., without wings, found near the Rocky Mountains; C. calcaratus Lec. (Tenebrio calc. Fabr.), winged, from the Atlantic States. The type and only species of Merinus is Tenebrio lævis Oliv., a large insect of a dull black color; that of Pachyurgus is Iphthinus æreus Mels.; to Xylopinus belong Tenebrio anthracinus Knoch, and rufipes Say, all from the Atlantic States. To Upis belongs U. ceramboides Fabr. (reticulatus Say), which is found throughout the northern portion of the continent; Haplandrus comprises Trogosita femorata Fabr. (Upis fulvipes Herbst.), and two other species.

Singular sexual characters are observed in the anterior and middle tibiæ of Centronopus, in the anterior tibiæ of Xylopinus, and in the anterior and hind tibiæ of Merinus; in the last named the hind femora are also armed with a small tooth. No very marked sexual differences are seen in Upis, Haplandrus, Scotobænus, or Cibdelis, nor in the genera with entire epipleuræ. In Cæloenemis the hind tibiæ of the male are furnished with a dense brush of hair on the inner face near the tip.

## Group III .- TENEBRIONES.

In this group the body is elongate oval, or elongate, and winged; the hind coxe are moderately distant, the legs are slender, and the tibial spurs are more conspicuous than in the other two groups, the tarsi are clothed beneath with a rigid pubescence; the epipleuræ are variable in length. The mentum is flat and trapezoidal.

Our genera are :--

Epipleuræ extending to the tip of the elytra. Epipleuræ not reaching the tip of the elytra.

TENEBRIO. Bius.

Some of the species are found under bark, and others in articles of commerce. To Bius must be referred *Tenebrio estriatus* Lec., from California and Hudson's Bay Territory.

#### Tribe VI.-HETEROTARSINI.

This tribe contains a few winged species of small size, and ovate form; they are remarkable for the coarseness of the punctures, and are sparsely clothed with erect hair. The head is not received in the thorax as far as the eyes, which are large and coarsely granulated; the front is slightly dilated over the base of the mandibles; the labrum articulates with the epistoma without any intervening elypeus; the antennæ 11-jointed, slightly thickened externally; the mentum is small; the epipleuræ are narrow and extend to the tip of the elytra. The anterior coxe are globose, the middle ones have a distinct trochantin, the hind eoxæ are slightly separated, and the intercoxal process of the abdomen is triangular; the legs are moderate; tibial spurs small; tarsi clothed beneath with long pubescence, the penultimate joint somewhat lobed. The hind margin of the third and fourth ventral segments is subcoriaceous.

Our genera are two:-

Antennæ gradually and slightly thickened externally.

Anædus.

Anænus.

Paratenetus.

Two species of Anædus are known in our fauna; one from the Atlantic States, the other from the Gila valley. Paratenetus occurs in the Atlantic States; it was placed by Spinola in Cleridæ, and is omitted by Lacordaire; Erichson referred it to the present family.

#### Tribe VII.-ULOMINI.

Body oval or elongate, winged; head slightly but suddenly narrowed behind, received in the thorax up to the eyes, which (in our genera) are transverse, emarginate, and coarsely granulated; the front is dilated so as to cover the base of the mandibles, and in part the mouth; the labrum is but slightly prominent; the mentum is small and trapezoidal, not concealing the ligula; gular peduncle distinct; antennæ 11-jointed, more or less thickened externally, perfoliate. Elytra with narrow epipleuræ. Anterior coxæ subtransverse; middle coxæ inclosed by the sterna, without trochantin; hind coxæ slightly separated; intercoxal process of the abdomen triangular; legs moderate; tibiæ sometimes dilated; tibial spurs distinct; tarsi pubescent beneath, the last joint much elongated. The hind margin of the third and fourth ventral segments is subcoriaceous.

The species are found under bark; a few also infest articles of commerce.

Our genera may be distinguished as follows:-

Antennæ with the last three joints suddenly larger.

Antennæ with the outer joints gradually larger;

Epipleuræ not reaching the tip of the elytra;

TRIBOLIUM.

Front tibiæ slender;

Outer joints of autennæ trapezoidal.

GNATHOCERUS.

Outer joints of antennæ transverse, rounded;
First joint of hind tarsi long.

CYNÆUS.

First joint of hind tarsi short.

THARSUS.

Front tibiæ dilated, serrate.
Epipleuræ extending to the tip of the elytra;

Front tibiæ dilated, finely denticulate.

Alphitobies.

Front tibiæ slender;

Mentum trapezoidal.

Ulosonia. Neatus.

Mentum with small, lateral, inflexed lobes. Front tibiæ dilated, not denticulate.

APHANOTUS.

Tribolium and Gnathocerus are represented by species carried by commerce over the whole globe. The type of Cynæus is Platydema angustum Lec., from the Colorado Desert of California; it resembles in appearance and sculpture Alphitobius, but is much less convex, being, in fact, almost flat. Tharsus is founded on a sub-depressed, elongate species of dark ferruginous color (20 unc. long); the thorax is almost as long as wide, strongly punctured, with the sides narrowly but strongly margined; the striæ of the elytra are distinctly punctured, the intervals are slightly convex, and finely but not densely punctulate: it is found in the Southern States, and I have named it T. seditiosus; it resembles in appearance Uloma ferruginea Say, but is smaller and narrower. Ulosonia must be referred Uloma marginata Lec., from the Colorado Desert of California. Neatus is established upon Helops tenebrioides Beauv. (Tenebrio badipes Mels.), a common insect of the Atlantic States; the middle coxe are almost closely surrounded by the sterna, and the trochantin is obsolete, as in Uloma. The type of Aphanotus is Eulabis brevicornis Lec., from California; it resembles very much in sculpture Eulabis, but differs by the metasternum being long and the body winged.

I have removed from this tribe several of the genera placed in it by Lacordaire, as they differ in having a distinct clypeus between the epistoma and the labrum.

#### Tribe VIII.—TRACHYSCELINI.

Body ovate, convex, winged; head received in the thorax as far as the eyes; front truncate, not dilated at the sides; labrum prominent; eyes emarginate, coarsely granulated; antennæ short, thick, 11-jointed; mentum small, inserted upon a gular peduncle; ligula prominent; maxillæ exposed; palpi not dilated; gular sutures confluent along the medial line; elytra with narrow epiplenræ. Anterior coxæ transverse; middle coxæ with distinct trochantin; hind coxæ approximate; intercoxal process of abdomen acute; legs stout, fossorial; tibial spurs distinct; tarsi short, spinous beneath.

Trachyscelis flavipes Mels., found on the sea-shore of the Southern States, represents this tribe in our fauna. It resembles in appearance a small Ægialia. The margin of the body and the prosternum are clothed with long hairs; the hind tibiæ are broad and thick, and densely covered externally with short spines, arranged without order.

#### Tribe IX.—PHALERIINI.

Body oval or rounded, usually winged; head received in the thorax as far as the eyes; front somewhat dilated at the sides, covering the base of the mandibles; epistoma truncate, separated from the prominent labrum by a short, coriaceous clypeus; eyes transverse, scarcely emarginate, coarsely granulated; antennæ slightly thickened externally; mentum small, inserted upon a gular peduncle; ligula and maxillæ exposed; palpi not dilated; gular sntures diverging; elytra with narrow epipleuræ. Anterior coxæ transverse; middle coxæ with distinct trochantin; hind coxæ not widely separated; intercoxal process triangular, subtruncate; legs stout; anterior tibiæ dilated; tibial spurs distinct; tarsi setose beneath.

The species of Phaleria are found on the sea-shore on the Atlantic and Pacific coasts.

#### Tribe X.-CRYPTICINI.

Body oval, winged; head received in the thorax as far as the eyes, which are transverse, reniform, small, and moderately granulated; front moderately dilated at the sides, over the base of the mandibles, truncate anteriorly, with a very short coriaceous cly-

peus visible; antennæ tolerably long, slender, outer joints rounded, very slightly thicker; mentum small; gular peduncle distinct; ligula prominent; palpi with the last joint slightly dilated. Elytra with moderate epipleuræ occupying the whole of the inflexed portion. Prosternum prolonged behind; mesosternum concave; metasternum moderately long, with narrow side pieces. Anterior coxæ almost rounded; middle coxæ with distinct trochantin, the epimera exceedingly short; hind coxæ not widely separated; tibiæ not dilated; spurs distinct; tarsi with small spines beneath; first joint of hind tarsi very long.

This tribe is represented in our fauna by Crypticus obsoletus Say, found in the Atlantic district.

This and allied foreign genera are placed by Lacordaire as a group of Coniontini, with the remark that it should constitute more properly a distinct tribe. It differs very much from Coniontini, as will be seen by the characters given above, and still more by the hind margin of the third and fourth ventral segments, being very distinctly coriaceous.

### Tribe XI.—BOLETOPHAGINI.

In this tribe the body is oblong and winged, opaque, with the surface rough, or at least with the elytra costate; head received in the thorax as far as the eyes; front variable; epistoma separated from the labrum by a short elypeus; eyes coarsely granulated; mentum inserted upon a gular peduncle; ligula prominent; palpi not much dilated; head under the eyes with a large groove for the reception of the base of the antennæ; elytra with narrow epipleuræ. Anterior coxæ transverse; middle coxæ with a small distinct trochantin; hind coxæ separated; intercoxal process triangular; legs moderate; tibial spurs small, tarsi pubescent beneath; the first joints very short, equal; the last joint longer than the others united.

I would divide the tribe into two groups according to the form of the epistoma and eyes.

Eyes deeply emarginated; epistoma much dilated. Eyes entire; epistoma not dilated.

BOLETOPHAGI.
RHIPIDANDRI,

## Group I.-Boletophagi.

In this group the front is prolonged and margined anteriorly and at the sides, covering the mouth above, and eausing the eyes to be deeply emarginated or even divided; the antennæ are gradually thickened externally, not differing according to sex.

The species live on fungi, which grow upon trees or under their bark. Our genera are two, both having the sides of the thorax broadly flattened.

Antennæ 10-jointed; eyes not entirely divided. Antennæ 11-jointed; eyes completely divided. Phellidius. Boletophagus.

No species of this group is yet known from the Pacific district. The type and only species of Phellidius is *Boletophagus cornutus* Fabr.; the genus is indicated but not named by Lacordaire, Gen. Col. v. 295. Of Boletophagus two species are known in our fauna.

# Group II.—Rhipidandri.

Of this group but a single species is known to me, Rhipidandrus flabellicornis Lec. (Xyletinus flabellicornis Sturm), a small, oval, opaque black insect, with finely ribbed elytra and yellow legs and antennæ; it is found throughout the Middle and Western States.

The front is not dilated either in front or at the sides, and the base of the mandibles is exposed; the eyes are rounded, scarcely emarginate. The antennæ are 11-jointed; gradually thickened externally in the female with the middle portion sub-serrate; strongly pectinate in the male, the joints 5–11 being much prolonged anteriorly, the 5th, however, being less prolonged than the others.

### Tribe XII.-DIAPERINI.

Body oval or rounded, winged; head received in the thorax as far as the eyes, which are transverse and coarsely granulated; front somewhat dilated at the sides, covering the base of the mandibles; epistoma truncate, separated from the labrum by a short coriaceous clypeus; antennæ more or less thickened externally, perfoliate; mentum small; gular peduncle distinct; elytra with narrow epiplenræ. Anterior coxæ transverse; middle coxæ with distinct trochantin; legs slender; tibial spurs small; tarsi pubescent beneath.

Two groups are thus distinguished:-

Eyes entire.
Eyes emarginated by the sides of the front.

PENTAPHYLLI.
DIAPERES.

## Group. I.—Pentaphylli.

Eves entire, not emarginated by the sides of the front; antennæ with the last five joints abruptly larger than the preceding, forming a loose elongate club.

One species of Pentaphyllus from Pennsylvania is known to The genus is distinguished by the eyes being rounded, not transverse.

## Group II .- Diaperes.

The transverse eyes are deeply emarginated by the sides of the front, and the antennæ, however much thickened externally, are not terminated by a club composed of abruptly larger joints. The species are numerous and live in fungi, either those of external growth, or those developed under bark.

1st joint of hind tarsi equal to the 2d. 1st joint of hind tarsi equal to 2d and 3d. 1st joint of hind tarsi longer than 2d and 3d;

HOPLOCEPHALA.

Intercoxal process of abdomen acute.

PLATYDEMA. SCAPHIDEMA.

DIAPERIS.

Intercoxal process of abdomen broad.

These genera are all represented in the Atlantic States: Platydema is the only one thus far known in the Pacific district. Scaphidema Redt. has for a synonym Nelites Lec.

#### Tribe XIII .- ADELININI.

Body of varied form; head received in the thorax as far as the eyes, which are coarsely granulated, transverse, and emarginate, except in Diædus; front dilated at the sides over the base of the mandibles, separated from the labrum by a sub-coriaceous elypeus; antennæ thickened externally; mentum small, trapezoidal; ligula prominent. Elytra with narrow epipleuræ. terior coxe nearly rounded; middle coxe without trochantin. inclosed by the sterna; hind coxe slightly separated; intercoxal process triangular; legs moderate; tibial spurs distinct; tarsi pubescent beneath; the first joint short in Hypophlœus and Diædus, elongated in the other genera.

I have placed in this new tribe a few genera which cannot be associated with Ulomini on account of the distinct elypeus, nor with Diaperini or Helopini, because of the absence of the trochantin of the middle coxe. The form of body is very different in the different genera; thus, Adelina is very flat, almost like Læmophlæus of the Cucujidæ; Hypophlæus is slender and cylindrical; Eutochia ( $Aniara \parallel$  Pej.) resembles in appearance Uloma, though stouter and more convex, and has, on the under surface of the prothorax, the peculiar rugous sculpture seen in Helops.

Pygidium not covered by the elytra; antennæ thick, perfoliate, epipleuræ not extending to the tip of the elytra. Hypophlæus.

Pygidium covered by the elytra; antennæ slender;

Outer joints of antennæ gradually larger;

Tibial spurs obsolete; epipleuræ entire.

PRATEUS.

Tibial spurs distinct;

Epipleuræ not extending to the tip of the elytra. Epipleuræ entire.

ADELINA. EUTOCHIA.

Last two joints of antennæ suddenly larger; epipleuræ entire. Diedus.

Adelina is represented by one species, A. pallida Lec. (Pytho pallida Say), from the Atlantic district, and another, A. plana Lec., from the Colorado Desert. The latter species is remarkable for the sides of the front of the male being dilated into an acute angle, under which is seen a short acute horizontal horn. The other genera are represented only in the Atlantic States.

In Eutochia picea Lec. (Aniara picea Mels.), the anterior tarsi of the male are dilated, and the anterior tibiæ are curved inwards.

The type of Prateus is a small brownish insect, *P. fusculus* Lec., of elongate form (·13 unc. long), coarsely but not densely punctured; the thorax is not wider than long, somewhat rounded, and finely margined on the sides, moderately convex, not narrower at tip than at base; the elytra are two and a-half times longer than the thorax, and without striæ; the epipleuræ extend to the tip of the elytra. It is found in the Middle and Southern States. The only species of Diædus known to me is a small (·10-·13 unc. long) oblong, reddish-brown, shining insect, with strongly punctured thorax, and deep punctured elytral striæ, found in the Atlantic States under pine bark. It resembles the European genus Phthora; but has only the last two instead of three joints of the antennæ large; the anterior tibiæ are slightly dilated and finely toothed. I have named the species *Diædus punctatus*; it resembles in appearance a miniature Uloma.

### Tribe XIV.-HELOPINI.

Body generally oblong, sometimes oval, apterons or winged; head received in the thorax nearly as far as the eyes, which are

transverse, emarginate, and coarsely granulated; front dilated at the sides, covering the base of the mandibles, truncate anteriorly, separated from the prominent labrum by a short coriaceous clypeus; antennæ gradually thickened externally; mentum small, trapezoidal, anterior portion coriaceous; ligula prominent. Flanks of prothorax separated by a margin from the back. Elytra with narrow or moderate epipleuræ. Anterior coxæ rounded; middle coxæ with distinct trochantin; hind coxæ sometimes widely, sometimes narrowly separated; legs tolerably long; tibial spurs smaller in the second than in the first group; tarsi pubescent beneath; the anterior and middle ones of the male usually dilated.

I have removed from this tribe, as constituted by Lacordaire, the genus Apoerypha, which by the agglutination of the dorsal and lateral pieces of the prothorax, seems well entitled to be considered as a distinct tribe. The remaining genera are homogeneous in form and characters, and are divisible into two groups, the first of which is allied to the Blaptini, but differ not only by the more prominent ligula, but by the small coriaceous elypeus, and narrow inflexed portion of the elytra; the difference in the vestiture of the tarsi is of less moment, as in some species the hairs become in part so rigid as to simulate bristles or spines.

Body hairy; outer joints of antennæ not compressed. Body glabrous; outer joints of antennæ compressed.

Amphidoræ.

### Group I .- Amphidoræ.

Body oblong, rarely almost linear, clothed with long erect hair, apterous; mesosternum short; hind coxæ widely separated in Cratidus and Amphidora, but less so in Stenotrichus; outer joints of the antennæ not compressed; tarsi with the pubescence beneath very coarse, sometimes almost spinous. The epipleuræ are moderately broad and do not extend to the tip of the elytra.

Outer joints of antennæ subglobose;

First joint of hind tarsi a little longer than the 2d. Cratious, First joint of hind tarsi as long as the 2d and 3d. Amphidora. Outer joints of antennæ subtriangular; 1st joint of hind tarsi long.

Stenotricus.

These genera are known only from California; Cratidus is founded upon Amphidora osculans Lec.; in it the anterior tarsi of the male are not dilated, but the hind tibie are armed with an

acute tooth on the inner face near the tip. Of Amphidora two species are known to me: A. nigropilosa Lec., and A. littoralis Esch. The type of Stenotrichus is A.? rufipes Lec., and to the same genus probably may be referred A. attenuata Lec.

These species are all found on the surface of the ground, but A. littoralis frequently occurs also under bark.

## Group II .-- Helopes.

Body convex, oblong or elongate, rarely oval, apterous, or winged; upper surface glabrous; mesosternum short, or moderate in length; hind coxæ narrowly separated; intercoxal process triangular, obtuse at tip; outer joints of the antennæ subtriangular, compressed. Front and middle tarsi of the male dilated; pubescence of the under surface of the tarsi fine. The epipleuræ are narrow, and do not extend to the tip of the elytra.

Our species are numerous, and some are found in each district. They are generally of a dark, metallic color, with much lustre; all are to be referred to the genus Helops, and in several of them the flanks of the prothorax are sculptured with deep lines.

#### Tribe XV.-MERACANTHINI.

Body ovate, convex, apterous; head received in the thorax nearly to the eyes, which are transverse, large, emarginate, and somewhat coarsely granulated; mouth somewhat quadrangularly prolonged; front separated from the labrum by a coriaceous elypeus; sides dilated over the insertion of the antennæ, and obliquely elevated, elevation not extending to the anterior margin of the front (as it does in all the preceding tribes); mentum trapezoidal; ligula prominent; last joint of palpi strongly securiform; antennæ long and slender, outer joints very slightly thicker; epipleuræ narrow, not extending to the tip of the elytra; metasternum short; anterior coxæ rounded; middle coxæ with distinct trochantin; hind coxæ widely separated; anterior thighs armed with an obtuse tooth, less prominent in the female; tibial spurs small; tarsi pubescent beneath.

This and the next tribe differ from all the others represented in our fauna by a peculiarity first pointed out by Lacordaire, and which led him to name the division of the family, to which they appertain, *Otidogénes*. In all the tribes above described the sides of the front, above the insertion of the antennæ, are horizontal,

and the lateral margin extends to the anterior margin; in this and the next tribe the lateral margin is elevated into an oblique ridge, which becomes obsolete before attaining the anterior margin of the front.

The present tribe has but one representative in the Atlantic district, *Mcracantha contracta*, found under bark; it has received many rames, but the oldest is that of *Helops contractus* Beauv.

## Tribe XVI.-STRONGYLIINI.

Body elongate, winged; head not received in the thorax as far as the eyes, which are large, transverse, emarginate, and somewhat coarsely granulated; mouth broadly but slightly prolonged; front separated from the labrum by a coriaceous elypeus; sides dilated over the insertion of the antennæ, and obliquely elevated, elevation not extending to the anterior margin of the front; mentum trapezoidal; ligula prominent; last joint of palpi strongly securiform; antennæ long and slender, outer joints very slightly thicker. Epipleuræ narrow, extending to the tip of the elytra; metasternum long; anterior coxæ rounded; middle coxæ with distinct trochantin; hind coxæ narrowly separated; legs long; tibial spurs very small; tarsi pubescent beneath.

But one genus, Strongylium, is represented by three species found under bark in the Atlantic district; two of them differing somewhat in the form of the thorax are described by Say; S. tenuicolle Lac. (Helops ten. Say) has the thorax subcylindrical, and as long as wide; S. terminatum Lac. (Tenebrio terminatus Say) has the thorax somewhat narrowed in front, and wider at the base than its length. In both species the last joint of the antennæ is pale yellow.

# FAM. XLVIII.—AEGIALITIDAE.

Mentum very transverse, trapezoidal, narrower in front, supported on a very short and broad gular process: ligula broad, prominent; labial palpi widely separated, short. 3-jointed.

Maxillæ (lobes not seen), base prominent; palpi short,

4-jointed, scarcely dilated.

Head prominent, not constricted behind, received into the thorax not as far as the eyes, which are small, convex, rounded,

and coarsely granulated; clypeus short, distinct; labrum

prominent; mandibles short (not distinctly seen).

Antennæ as long as the head and thorax, 11-jointed, last three joints one-half larger than the preceding ones, inserted under very small oblique frontal ridges.

Prothorax subcylindrical, lateral suture obliterated; coxal

cavities entirely closed behind, and widely separated.

Mesosternum moderately long; coxal cavities (apparently) surrounded by the sterna, side pieces not seen.

Metasternum very short, side pieces not very wide.

Elytra separate, broadly rounded at tip, covering the ab-

domen; epipleuræ extremely narrow, wings wanting.

Abdomen with six ventral segments; the first and second connate, the fifth truncate at tip, and united by suture to the sixth.

Legs long; anterior coxæ globose, prominent, widely separated, without trochantin; middle ones very widely separated, rounded, without trochantin; hind ones very widely separated, oval; tibiæ slender, with very small spurs; anterior and middle tarsi 5-jointed, hind ones 4-jointed; all the joints short and equal, pubescent beneath, except the last, which is very long and stout, with large, simple claws.

The characters above detailed are abundantly sufficient to separate as a distinct family the single species, Aegialites debilis Mann., from Russian America, upon which it is founded.

The insect is of small size, and of black color, with the elytra gradually widened from the thorax, and impressed with punctured

striæ, gradually becoming effaced towards the sides.

Regarding the affinities of this genus various opinions have been entertained. Mannerheim hesitated between Scydmænidæ and Tenebrionidæ; Motschulsky, on account of the form of the tarsi, placed it among the Parnidæ; Gerstaecker placed it in Tenebrionidæ near Helops. It is of such extreme rarity as to have been seen by but few entomologists. For a specimen of it I am indebted to Col. Motschulsky.

# FAM. XLIX.—CISTELIDAE.

Mentum small, trapezoidal, wider in front; ligula exposed; paraglossæ distinct; labial palpi 3-jointed; gular peduncle distinct.

Maxillæ with two flattened, ciliate lobes: palpi 4-jointed,

frequently long and much dilated.

Head suddenly but only moderately narrowed behind the eyes; neck thick, received by the prothorax; mouth moderately prolonged; eyes not finely granulated, usually large, transverse, and emarginate; anterior part of front subcoriaceous; clypeus not distinct (except in Stenochidus, where the front is corneous, and the clypeus somewhat distinct); labrum prominent; mandibles short.

Antennæ 11-jointed, long, more or less serrate, sometimes nearly filiform, inserted under small oblique frontal ridges, which do not reach the anterior margin of the front, and are

usually almost obsolete.

Prothorax with epimera and episterna not distinct, lateral margin obvious in our genera; anterior coxal cavities closed behind, sometimes confluent.

Mesosternum short, side pieces attaining the coxal cavities.

Metasternum long in our genera; episterna narrow.

Elytra rounded at tip; epipleuræ narrow; wings perfect

in our genera.

Abdomen with five or sometimes six ventral segments, of which the first three are more closely connected, though not connate; the hind margin of the third and fourth is coria-

ceous; intercoxal process acute in our genera.

Legs generally long; anterior coxæ varying from globose and subtransverse to conical; middle coxæ with distinct trochantin; hind coxæ transverse, not widely separated in our genera; tibial spurs distinct; tarsi usually lobed beneath. anterior and middle ones 5-jointed, hind tarsi 4-jointed; claws always distinctly peetinate.

The species of this family approach very nearly in organization to the last tribes, or most degraded forms of Tenebrionidæ; and the degradation of structure is carried still farther by the anterior coxæ becoming conical, prominent, and contiguous in certain genera. The only characters to be relied on for the isolation of this family are—1st, the pectinate claws; 2d, the anterior coxal cavities closed behind.

Some of the species live on leaves and flowers, others are found under bark.

Two tribes exist in this family, but one of which is represented in our fauna; groups of genera seem to be indicated, but the characters, when illustrated by foreign genera, appear to be very indefinite. I shall therefore give simply a synoptic table of our genera without attempting further division.

Front entirely corneous;

STENOCHIDUS.\*

Front with the anterior margin subcoriaceous;

Mandibles emarginate at tip; sixth ventral segment invisible;

Anterior coxæ separated by prosternum;

Tarsi with distinct lobes.

ALLECULA.

CISTELA.

Tarsi with obsolete lobes;

Last joint of maxillary palpi longer than wide. Last joint of maxillary palpi transverse.

STIGMATOMA.

Anterior come contiguous, cavities confluent.

MYCETOCHARES.

Mandibles emarginate at tip; sixth ventral segment visible (tarsi not lobed);

Second and third joints of antennæ equal, very small. Chromatia.

Third joint of antennæ longer than the second. Capnochroa.

Mandibles with the tip entire. Androchrus.

To Stenochidus belong Stenochia gracilis Lec. and Prionychus cyanescens Lec., from California. The species of Allecula and Cistela are numerous, and the majority are undescribed; Cistela is found on both sides of the continent. Of Stigmatoma I have three species; all are shining black with red humeral spots. only one described is Cistela fraterna Say. Of Mycetochares I have four species, of which M. binotata Say is the only one described. Chromatia is founded upon Cistela amoena Say, a species with strongly serrate antennæ, which differs from Cistela not only by the third joint of the antennæ being very small, but by the sixth ventral segment being prominent and deeply excavated in the male. Capnochroa is established on Cistela fuliqinosa Mels., a large species which, with all the other characters of Cistela, differs by the sixth ventral segment being visible in both sexes, and in the male very deeply excavated, so as to form two flattened, curved processes. The eyes are large.

The type of Androchirus is Cistela fuscipes Mels., found in the Middle States; it is a large species with yellow legs, and the

<sup>\*</sup> This genus has the thorax narrower than the elytra, and thus approaches in form the Australian genus Atractus. The mandibles are truncate; at the base of the labrum is an obsolete clypeus; the last joint of the much elongated maxillary palpi is large and securiform: the anterior coxe are small and globular; the intercoxal process of the abdomen is narrow; the third and fourth joints of the front and middle tarsi, but only the third joint of the hind tarsi, are lobed beneath. This genus, by the form of the front and of the anterior coxe, indicates a separate group; the species are of a dark, submetallic color, and entirely glabrous.

hind angles of the thorax prolonged backwards, the sixth ventral segment is visible in both sexes, and in the male is very deeply excavated, so as to form two long, flattened, curved processes; the fifth segment is emarginate in the same sex; the joints 1—4 of the anterior tarsi of the male are moderately dilated, and the fifth is elongated, flattened, and twisted, so as to be much deformed, with the claws larger than the female. The mandibles are not truncate or emarginate at tip, and the tarsi are not at all lobed. A second species ('38—'41 unc. long), from the Southern States, only differs from A. fuscipes by the thorax being less sinuate at base, with the hind angles scarcely prolonged. I have named it A. luteipes.

# FAM. L.—LAGRIIDAE.

Mentum transverse, trapezoidal, wider in front, supported on a distinct gular process; ligula prominent; palpi 3-jointed.

Maxillæ with two flattened, ciliated lobes; palpi 4-jointed,

moderate in size.

Head prominent, horizontal, inserted into the thorax, more or less constricted behind the eyes, which are transverse, emarginate, and not finely granulated; clypeus subcoriaceous; labrum prominent; mandibles short.

Antennæ 11-jointed, nearly filiform, inserted under very

small oblique frontal ridges.

Prothorax narrower than the base of the elytra, subcylindrical, with the lateral suture obliterated; anterior coxal cavities closed behind, and nearly confluent.

Mesosternum moderately long, side pieces attaining the coxal cavities; metasternum long, side pieces narrow; epi-

mera not visible.

Elytra rounded at tip, covering the abdomen; epipleuræ

narrow; wings perfect.

Abdomen with five free ventral segments, the anterior four of which appear to be more closely connected; fifth

rounded at tip, sixth sometimes visible.

Legs slender; anterior coxe conical, prominent, without trochantin, separated by a very narrow prosternum; middle coxe separated, with distinct trochantin; hind coxe transverse; tibial spurs obsolete; front and middle tarsi 5-jointed; hind tarsi 4-jointed, with the first joint long; the penultimate joint of all the tarsi (except in one foreign genus) is dilated,

emarginate, and clothed beneath with a dense brush of hairs; claws simple.

This family is represented in our fauna by three species from the Atlantic States; they are found under bark and on leaves; they belong to a tribe, Statyrini, to be distinguished from the genuine Lagriini by the sixth ventral segment being visible, and the last joint of the antennæ elongated. Two genera are indicated:—

Head scarcely constricted behind (elytra not striate). ARTHROMACRA. Head strongly constricted behind (elytra striate). Statyra.

To Arthromaera belongs only Lagria anea Say (Arthrom. donacioides Kirby).

There is absolutely nothing in the preceding formula which can be relied on as distinguishing this family from the Tenebrio-nidæ, except the prominent anterior coxæ, and the dilated penultimate joint of the tarsi; the larvæ are nevertheless very different, and it is chiefly owing to a knowledge of that fact that the two families are retained as distinct.

# FAM. LI.—MONOMMIDAE.

Mentum moderate in size, somewhat rounded, supported by a broad gular process; gular fissures narrow; ligula corneous, somewhat prominent behind the mentum; labial palpi 3-jointed.

Maxillæ with two flattened ciliated lobes; palpi 4-jointed,

last joint truncate.

Head horizontal, prominent, received in the thorax as far as the eyes, which are large, transverse, and strongly granulated; front flat, rounded anteriorly; labrum short, scarcely prominent; mandibles short, emarginate at tip.

Antennæ inserted under the frontal margin, received in grooves on the under surface of the prothorax, 11-jointed; last three joints larger, forming an oval flattened club.

Prothorax gradually narrowed from base to tip, as wide at base as the elytra; lateral suture distinct; flanks with a deep curved groove from the front to the hind angle for the reception of the antennæ; prosternum broad, rounded behind, fitting closely to the mesosternum; coxal cavities very small, closed behind by the mesosternum.

Mesosternum broad, side pieces not extending to the coxal

cavities; metasternum large; side pieces narrow; epimera visible.

Elytra rounded behind, covering the abdomen; epipleuræ

not very wide, extending to the apex.

Abdomen with five free segments; the first elongated, the 5th marked with a curved submarginal furrow in our genus.

Legs moderate, strongly contractile; anterior coxæ distant, searcely visible, rounded; middle coxæ flat, widely separated; hind ones flat, transverse, widely separated; middle thighs suddenly contracted at the base; tibiæ slender, compressed; tarsi not dilated, slightly pubescent beneath; anterior and middle ones 5-jointed, hind ones 4-jointed; claws small, simple; first joint of hind tarsi long.

This family consists of small, black, oval flattened insects, resembling in appearance Triplax of the Erotylidæ. It appears to constitute a very distinct type, without well-marked affinities with any other family. It contains but two genera: Monomma confined to the Eastern, Hyporhagus to the Western Continent. Of the latter genus one species is found in the Atlantic, and a second in the Pacific district. Both are described by Mr. Thomsou in his beautiful monograph (Annales de la Société Entom. de France, 1860).

# FAM. LII.—MELANDRYIDAE.

Mentum transverse, trapezoidal, generally narrower in front, supported on a large gular process; ligula prominent; labial palpi 3-jointed.

Maxillæ with two flattened ciliate lobes; palpi 4-jointed,

frequently very long and much dilated.

Head usually deflexed, generally not constricted behind; received into the thorax not as far as the eyes; suddenly constricted behind in Scraptia; eyes emarginate or entire, and not finely granulated; elypeus often subcoriaceous; labrum prominent; mandibles short.

Antenna 11-jointed in our genera (10-jointed in the foreign genus Conopalpus); generally filiform; sometimes thicker externally, inserted under very small oblique frontal

ridges.

Prothorax as wide behind as the base of the elytra (except in Stenotrachelus), with the lateral suture always distinct; anterior coxal cavities open behind, frequently confluent. Mesosternum moderately long, side pieces attaining the coxal cavities; metasternum long, side pieces narrow; epimera visible.

Elytra rounded at tip, covering the abdomen; epipleuræ

narrow; wings perfect.

Abdomen with five free ventral segments, the anterior two sometimes more closely connected; intercoxal process small.

Legs moderate or long, slender; anterior coxæ large and oval when separated, conical and prominent when contiguous, sometimes with trochantin; middle coxæ with distinct trochantin, sometimes nearly contiguous; hind coxæ transverse, contiguous, or nearly so; tibial spurs distinct; front and middle tarsi 5-jointed, hind tarsi 4-jointed; the penultimate joint frequently emarginate; claws simple (except in Nothus and Stenotrachelus).

This family contains a moderate number of species found under bark, or in fungi. The form is generally elongate, and the thorax is often marked with two basal impressions; the first joint of the hind tarsi is always much elongated.

Four tribes are separated thus:-

Head not constricted behind;

Antennæ with the last four joints suddenly larger.

Antennæ gradually thickened or filiform;

Claws simple, or rarely dilated at base. Claws cleft to the base.

Head constricted behind into a small neck.

TETRATOMINI.

Melandryini. Stenotrachelini.

SCRAPTINI.

#### Tribe I.—TETRATOMINI.

This tribe is constituted of but a single genus Tetratoma, of which two species are found in the Atlantic States in fungi; they are oval and convex; the palpi are short, not much dilated; the antennæ are 11-jointed, with the last four joints equal in size, and each is about three times as long as any of the preceding ones; the tibial spurs are small, and the claws are simple; the coxæ are not contiguous but separated by their respective sterna.

### Tribe II.-MELANDRYINI.

The outer joints of the antennæ are not suddenly larger, and the claws, except in Nothus, are simple; according to the position of the coxæ the following groups may be established, in all of which the antennæ are 11-jointed: Anterior coxe oval, separated by the prosternum; Head horizontal;

3d joint of antennæ longer than the 4th.

3d joint of antennæ equal to the 4th.

Head vertical.

ORCHESIÆ.

Anterior coxæ contiguous;

Claws simple;

Frontal suture not visible.

Frontal suture distinct.

Claws broadly dilated and toothed at the base.

Nothing.

## Group I .- Penthes.

I have placed as a separate group the genus Penthe, represented by two velvety black, flattened, oval species, found under bark in the Atlantic States; the more common one, P. obliquata, is readily known by the scutellum covered with orange-colored hair.

These insects resemble in appearance gigantic Mycetophagi, and have been classed by previous authors among the Tenebrionidæ; the anterior coxal cavities are widely open behind.

The antennæ are not thickened externally; the 3d joint is as long as the 4th and 5th together; the 7-10 are rounded, the 11th is a little longer, and is pale at the tip; in the male the joints 4-7 are compressed and broader than the others; the maxillary palpi are moderate in length, and but slightly dilated; the anterior coxæ are oval and separated by the prosternum; the middle coxæ are equally distant, and the hind coxæ are less distant; the tarsi are filiform, the penultimate joint not being lobed; the claws are simple; the tibial spurs are short.

## Group II.—Synchroae.

This group contains but a single species, Synchroa punctata Newman (Melandrya umbrina Mels.), from the Atlantic States. The form is elongate, like an Elateride of the genus Melanotus, coarsely punctured and pubescent; the head is prominent and horizontal; the maxillary palpi are moderate in length, and but slightly dilated; the antennæ are long, slender, and feebly serrate, and the third joint is not longer than the fourth; the anterior coxæ are oval and separated by the prosternum, which is also slightly prolonged; the middle coxæ are equally separated; the hind coxæ are less distant; the tarsi are filiform, and the claws simple; the tibial spurs are long.

## Group III.—Orchesiae.

Head vertically deflexed; antennæ gradually thickened externally, 11-jointed, third joint not conspicuously elongated; maxillary palpi with the last joint more or less dilated; anterior coxæ oval, separated by the prosternum; middle coxæ separated; hind coxæ contiguous, flat, variable in form, oblique in Hallomenus, not oblique in the other genera; spurs of middle and hind tibiæ variable in size, but very large and serrate in Orchesia; tarsi filiform; claws simple.

Hind coxæ small; tibial spurs long, simple. Hind coxæ large; tibial spurs serrate. Hind coxæ oblique; tibial spurs simple. Eustrophus. Orchesia. Hallomenus.

One species of Eustrophus was found by me at the Colorado and Gila Rivers of California, and one of Hallomenus is known from Russian America; the other species are found in the Atlantic States.

# Group IV.—Serropalpi.

Head more or less inclined, sometimes vertical; frontal suture not distinct; antennæ variable, third joint not conspicuously elongated; maxillary palpi variable, sometimes very long, with the third and fourth joints dilated internally, and the fourth large and securiform (in which ease they are called serriform); anterior eoxæ conical, contiguous, without trochantin, except in Xylita, where the trochantin is indistinct; middle coxæ not contiguous, except in Xylita; tibial spurs slender, sometimes very small; tarsi with penultimate joint sometimes emarginate or lobed; claws simple.

I have united into one group the Serropalpides and a portion of the Melandryides, of Lacordaire, as they seem insensibly to merge together.

Our genera may be thus tabulated :-

Hind tarsi with 3d and 4th joints equal; palpi strongly serriform.

SERROPALPUS.

Hind tarsi with 3d joint shorter than the 4th, more or less lobed.

Maxillary palpi with the second and third joints as wide as the 4th;

Head vertical; prosternum short in front of coxæ. Head oblique; prosternum not very short;

Maxillary palpi not serriform

Maxillary palpi not serriform.

Maxillary palpi serriform.

PHLŒOTRYA?
HYPULUS.

DIRCÆA?

Maxillary palpi with the 4th joint wider than the 2d and 3d;

Eyes entire or nearly so;

Last joint of maxillary palpi triangular, securiform;

Middle coxæ contiguous.

XYLITA.

Middle coxæ separate;

Pubescence erect; antennæ not very thick.

ZILORA.

Pubescence prostrate; antennæ thick, outer joints transverse.

CAREBARA.

Last joint of maxillary palpi very long, cultriform.

Spilotus.

Eyes strongly emarginate, last joint of palpi securiform.

Trotomma.

All of these genera occur in the Atlantic States; Serropalpus, Hypulus, and Xylita have also occurred in Oregon. To Phlœotrya I would refer Dircæa sericea Hald. Carebara is established on a slender species with thick antennæ; it is remarkable for the tibial spurs being almost obsolete. The species C. longula Lee. is narrow and flattened, dark brown, finely punctured and pubescent, somewhat shining (25 und. long); the thorax is nearly square, not narrowed in front, and searcely rounded on the sides; the abdomen projects a little beyond the elytra; the base of the antennæ, the feet, and sometimes the ventral surface, are testaceous. The type of Spilotus is Hallomenus quadripustulosus Mels.; it appears to be related to the European Abdera, but differs in the form of the last joint of the maxillary palpi. To Trotoma belong Scraptia flavicollis Hald., and S. rugosa Hald.

## Group V.-Melandryae.

Head inclined, never vertical, frontal suture distinct; antennæ with the third joint not conspicuously elongated; maxillary palpilong, sometimes moderately serriform, last joint wider, securiform; anterior coxæ conical, contiguous, with distinct trochantin; middle coxæ absolutely contiguous; tibial spurs slender, never small; tarsi with penultimate joint more or less lobed; claws simple.

Our genera are four in number:-

Thorax with the base sinuous, but not distinctly lobed;

Elytra not striate.

PROTHALPIA.

Elytra striate. Melandrya.

Thorax with a broad basal lobe; elytra punctured, not at all striate; 2d and 3d joints of antennæ together not longer than the 4th. Emmesa. 3d joint of antennæ scarcely shorter than the 4th. Phryganophilus.

Melandrya is represented by M. striata Say, Emmesa by E. connectens Newm. (Melandrya maculata Lec.), and E. labiata (M. labiata Say), all from the Atlantic States; Phryganophilus

collaris Lec. is found from Maine to Oregon. Prothalpia is founded on P. undata Lec., from Louisiana, a brown, shiuing, punctured insect (·27 unc. long), clothed sparsely with pale hairs, and having the elytra pale, coarsely punctured, and ornamented with narrow fuscous spots, which are partly confluent into three transverse bands; the thorax is semicircular, slightly sinuous at the base, the middle of which is feebly emarginate; it is more densely and less coarsely punctured than the elytra, and is dusky, except at the sides; there are three impressions near the base, the middle one broad, and the other two smaller and deeper. The antennæ are longer than the head and thorax, slightly thickened externally, dusky, with the base pale; the third joint is a little longer than the fourth; the maxillary palpi are not at all serriform; the feet and palpi are pale.

# Group VI.-Nothi.

Head inclined; antennæ subserrate, not thickened externally; maxillary palpi with the last joint large, dilated, nearly cultriform; anterior coxæ conical contiguous, with large trochantin; middle coxæ nearly but not quite contiguous; tibial spurs obsolete, tarsi with penultimate joint conspicuously lobed, claws with a broad rectangular dilatation at base in the female, trifid in the male.

This group contains but one genus, Nothus, found on flowers; it is represented by two species in the Atlantic States; they have much the appearance of Telephorus. In the males the hind femora are curved, and the tibiæ armed with a process on the inner margin near the tip.

#### Tribe III. - STENOTRACHELINI.

Head horizontal; antennæ nearly filiform; maxillary palpi with the last joint large, securiform; anterior coxæ conieal, contiguous, with distinct trochantin; middle coxæ absolutely contignous, tibial spurs slender; tarsi filiform; claws cleft to the base, with the inferior portion as long as, but more slender than the upper.

Stenotrachelus arctatus Lec. (Helops arctatus Say; Sten. obscurus Mann.), alone represents this tribe in our fauna. It is found from Lake Superior to Russian America, and is a slender

insect (5 unc. long) of a very dark bronzed color, panetured with fine cinereous pubescence; the eyes are larger in the male than the female and slightly emarginate.

This tribe is remarkable for presenting the first instance of the cleft form of claws, which reappears subsequently in the Anthieidæ in the genus Nematonyx, and becomes very general in the families Mordellidæ and Meloidæ; I am very doubtful whether it and Scotodes, a Russian genus, should not be separated as a distinct family and placed just before Anthicidæ; the head is constricted at base, at least on the sides, and the thorax is narrower than the elytra.

### Tribe IV.—SCRAPTIINI.

Head inclined; suddenly constricted a short distance behind the eyes into a small neck; maxillary and labial palpi with the last joint securiform; anterior coxe large, conical, contiguous, with distinct trochantin; middle coxe absolutely contiguous; tibial spurs slender; tarsi with the penultimate joint lobed; claws simple.

But one genus, Scraptia, is contained in this tribe; the eyes are transverse, deeply emarginate, and strongly granulated, the antennæ are long, slender, and very fragile. Our species are found on leaves, and thus far only in the Atlantic States.

# FAM. LIII.—MYCTERIDAE.

Mentum transverse; a little wider in front, supported by a large gular process; ligula prominent, bilobed; labial palpi 3-jointed.

Maxillæ with a large prominent base, and two ciliated lobes; palpi 4-jointed, last joint elongate, triangular, ob-

liquely truncate.

Head slightly narrowed behind the eyes, which are rounded and not very finely granulated; scarcely inclined; front prolonged into a flattened beak as long as the rest of the head, in the first tribe, short in the second; clypeus short, coriaceous; labrum prominent; mandibles emarginate at tip.

Antennæ 11-jointed, nearly filiform; inserted at the sides

of the front.

Prothorax trapezoidal, nearly as wide at base as the elytra; lateral suture wanting; coxal cavities confluent, open behind.

Mcsosternum narrow, separating the coxæ; side pieces not extending to the cavities.

Metasternum long, side pieces not very narrow; epimera visible.

Elytra covering the abdomen; epipleuræ narrow, distinct. Abdomen with five free ventral segments; the anterior two of which appear more closely connected; intercoxal process acute.

Legs slender; anterior coxæ small, conical, contiguous, without trochantin; middle coxæ small, rounded, separated, entirely inclosed by the sterna; hind coxæ transverse, separated; tibial spurs small; front and middle tarsi 5-jointed; hind tarsi 4-jointed; the penultimate joint dilated into a short membranous lobe beneath; claws armed with a broad basal tooth.

The two genera which I have here associated have very few points in common, except those above detailed; the first resembles in form some of the smaller Alleeulæ or Cistelæ, while the second does not resemble especially any other insect known to me.

The two genera indicate different tribes:-

Head prolonged into a rostrum. Head short, not rostrated.

MYCTERINI. LACCONOTINI.

## Tribe I.-MYCTERINI.

Head prolonged before the eyes into a flattened beak as long as the rest of the head: antennæ nearly filiform; epipleuræ extending to the tip of the elytra; first ventral segment as long as the 2d; 5th very short.

The genus Mycterus, usually classed among Oedemeridæ, alone represents this tribe; one species in the Atlantic States, and another in New Mexico belong to our fauna. The firmer consistence of the integuments, the distinct epipleuræ, the small size of the coxæ, and the membranous sole of the penultimate joint of the tarsi are valid reasons for removing this genus from association with Oedemeridæ to the position here given it; the resemblance in form to some of the members of Cistelidæ is considerable, while in structural characters, Mycterus has much affinity with Salpingus.

### Tribe II.-LACCONOTINI.

Head short; antennæ as long as the head and thorax, subserrate; epipleuræ not extending to the tip of the elytra; first ven-

tral segment very short, only one-half as long as the 2d; 5th as long as the 4th.

Lacconotus punctatus Lee., a small insect given me as found in Pennsylvania, alone constitutes this tribe; it is of narrow form (17 nnc. long), black, strongly punctured, and thinly clothed with short pubescence; the thorax is rather flat, nearly square, with two large discoidal fovew; the basal edge is tinged each side with red. The elytra are wider than the thorax, parallel, rounded at the tip, and not very convex; they are punctured like the head and thorax, and are slightly rugons. The 2d ventral segment has a very large pale spot occupying the whole middle portion.

I can add but little to the characters given above; the ligula and mentum are smaller than in Myeterus, and the maxillary palpi less elongated.

# FAM. LIV.—PYTHIDAE.

Mentum transverse, trapezoidal, narrower in front, supported on a broad and short gular process; ligula visible; labial palpi 3-jointed.

Maxillæ with flattened, ciliate lobes; palpi 4-jointed,

moderate in size.

Head not constricted behind, prominent in our tribes, received by the prothorax not as far as the eyes, which are not emarginate, and not finely granulated; clypeus short, distinct; labrum prominent; mandibles short, emarginate at tip, sometimes toothed internally.

Antennæ 11-jointed, slightly thickened externally, inserted

under small oblique frontal ridges.

Prothorax narrower at base, with the lateral suture distinct in Boros and Crymodes, wanting in the other genera; anterior coxal cavities open behind, frequently confluent.

Mesosternum moderately long, side pieces attaining or not the coxal cavities; metasternum long (except in Cononotus),

side pieces narrow.

Elytra rounded at tip, covering the abdomen; epipleuræ narrow, wings perfect (except in Cononotus).

Abdomen with five ventral segments, all free; intercoxal

process small, acute (except in Cononotus).

Legs moderate; anterior coxe conical, usually contiguous, sometimes with trochantin; middle coxæ rounded, with or without trochantin; hind coxæ transverse, nearly contiguous,

except in Cononotus, where they are very widely separated; tibiæ slender, with the spurs small but distinct; tarsi slender, never lobed, anterior and middle ones 5-jointed, hind ones 4-jointed, (said to be 5-jointed in Tanyrhinus); claws simple.

This family contains a small number of species, mostly confined to northern localities; those of the first and third tribes live under bark, those of the second are found under stones.

Our three tribes (or perhaps more properly sub-families) may be separated as follows:—

Middle coxe with distinct trochantin.

Middle coxe inclosed by the sterna, without trochantin;

Metasternum short, head not rostrated.

Metasternum long, head with a distinct rostrum.

PYTHINI.

CONONOTINI.

SALPINGINI.

### Tribe I.—PYTHINI.

Head prominent; last joint of maxillary palpi dilated; metasternum long, body winged; intercoxal process of abdomen small, acute; middle coxæ with distinct trochantin, extending to the epimera; mandibles visible beyond the labrum, emarginate at tip, and in Priognathus also serrate on the inner edge.

These species are of moderate or large size, and are found under bark; in general aspect they resemble certain Tenebrio-nide, but are immediately known by the anterior coxal cavities being open behind.

Two of our genera, Crymodes and Priognathus, are peculiar to the northern part of America; the other two are also represented in Northern Europe; they are distinguished as follows:—

Lateral suture of prothorax visible; middle coxæ separated;
Anterior coxæ separated by prosternum.

Anterior coxæ almost contiguous.

Lateral suture of prothorax wanting; middle coxæ contiguous;

Mandibles with one small tooth; body depressed.

Pytho.

Mandibles serrate; body not depressed.

Of Pytho, two species are known in our fauna; of the other genera but single species have yet been discovered.

#### Tribe H.—CONONOTINI.

Head prominent, obtuse; metasternum short, hind margin almost straight, wings none; intercoxal process of abdomen very broad; middle coxæ nearly contiguous, closely embraced by the

sterna, without trochantin; mandibles scarcely visible beyond the labrum; anterior coxæ small, conical, contiguous; tibial spurs very small.

This tribe consists of the genus Cononotus, of which two species were found by me under stones in California; they are slender, pale brown, finely pubescent insects of small size, having the thorax elongated, and regularly conical in form, and much narrowed behind; the lateral suture is nearly effaced, though still capable of being traced; the maxillary palpi are very long, and the last joint is large and triangular.

It is very difficult to indicate the affinities of this genus; it seems to be equally out of place in any family. It was formerly considered by me as allied to Apocrypha, of the Tenebrionidæ, a view adopted by Lacordaire; but the open anterior coxal cavities forbid such an association. The first and second ventral segments appear to be connate; should dissection confirm this observation, it will point very strongly towards the reception of the genus as a separate family.

### Tribe III. - SALPINGINI.

Head prominent, front flattened, prolonged more or less into a broad beak; last joint of maxillary palpi not dilated; metasternum long, body winged, intercoxal process of abdomen acute; middle coxæ embraced by the sterna, without trochantin; mandibles not visible beyond the labrum; anterior coxæ conical, contiguous.

This tribe consists of species of small size; two of the genera are represented on both sides of the continent; the third, Tanyrhinus, is found in Russian America, and is unknown to me; the form of thorax is very different from that of the other genera, being described as very much narrower at tip than at base; the reverse is the case in every genus of the present family known to me; the 5-jointed hind tarsi are also altogether anomalous, and I am inclined to believe that the genus has been improperly considered as allied to Rhinosimus.

Hind tarsi 4-jointed;

Beak broad, and very short.

Beak prolonged;

Hind tarsi 5-jointed; beak prolonged.

Salpingus. Rhinosimus. Tanyrhinus.

# FAM. LV.—ŒDEMERIDAE.

Mentum trapezoidal, slightly narrowed in front, supported by a large gular process; ligula large, prominent, bilobed; labial palpi 3-jointed.

Maxillæ with large exposed base, and two flattened ciliate

lobes; palpi 4-jointed, last joint dilated in our genera.

Head slightly inclined, gradually, but not strongly narrowed behind, received into the thorax not as far as the eyes, which are tolerably strongly granulated in Calopus, but more finely in our other genera; front somewhat prolonged; epistoma subcoriaceous; labrum prominent; mandibles emarginate at tip, furnished on the inner margin with a membranous ciliated border.

Antennæ 11-jointed, nearly filiform, sometimes serrate.

Prothorax narrower at the base than the elytra, lateral suture wanting; coxal cavities widely open behind, confluent.

Mesosternum pointed behind; side pieces extending to the coxal cavities, which are generally confluent; metasternum long; side pieces narrow.

Elytra covering the abdomen; epipleuræ almost wanting;

visible only near the base.

Abdomen with five free ventral segments, the 6th some-

times visible in the males.

Legs moderate; anterior coxæ large, conical, contiguous; middle coxæ conical, contiguous or slightly separated, sometimes with distinct trochantin; hind coxæ transverse, nearly contiguous; tibial spurs distinct; anterior and middle tarsi 5-jointed; hind tarsi 4-jointed; the penultimate joints dilated in our genera, and furnished with a dense brush of hairs beneath; claws simple, slightly dilated at the base.

Insects of moderate size found generally upon plants, though some species of Asclera live near water on the ground.

Our genera are as follows:-

Antennæ partly surrounded by the eyes; middle coxæ not contiguous;

Clypeal suture not obvious. CALOPUS. Clypeal suture very distinct.

Antennæ not surrounded by the eyes; middle coxæ contiguous;

Anterior tarsi with more than the 4th joint spongy pubescent beneath; Anterior tibiæ with two distinct spurs. DITYLUS.

NACERDES. Anterior tibiæ with but one spur.

Penultimate joint only of the tarsi spongy pubescent beneath; anterior tibiae with two spurs.

Asclera.

Calopus is found in Texas and New Mexico; the other genera are represented on both sides of the Continent; the only species of Nacerdes is *N. melanura*, which is also found in Europe.

Microtonus is founded on a very small brown sericeous insect, found on leaves in the Atlantic States. The last joint of the palpi is large and securiform; the antennæ are inserted at a small emargination of the eyes, are slender, one-half the length of the body, with the 2d joint one-third as long as the following one; the eyes are comparatively large, widely separated, and tolerably coarsely grannlated; the front is crossed by a very distinct curved suture, just before the eyes; the penultimate joint of the tarsi is very slightly bilobed. The species M. sericans Lec. is small (10-15 une. long) and slender, brown, densely punctured, and clothed with short sericeous pubescence; the thorax is as wide as the head, nearly square, feebly bisinuate at base, with the hind angles subacute, very feebly rounded on the sides, and generally vaguely impressed near the sides behind the middle.

# FAM. LVI.—CEPHALOIDAE.

Mentum small, nearly square, supported by a gular process; ligula membranous, broad, bilobed, prominent; labial palpi small, 3-jointed.

Maxille with the base large and prominent, and two long slender lobes ciliate at the tip; palpi 4-jointed, last joint tri-

angular, obliquely truncate.

Head inclined, large, rhomboidal, gradually narrowed behind the eyes, suddenly constricted at base, inserted into the thorax by a not very slender neck; eyes small, reniform, finely granulated; mandibles small, acute at tip, subserrate on the inner margin with a broad membrane extending from the base half the length; labrum prominent; frontal suture not distinct.

Antennæ inserted at the sides of the front, under a small ridge in front of the eyes, 11-jointed; slightly thickened to-

wards the tip.

Prothorax elongate, trapezoidal, as wide at base as the elytra, lateral suture wanting; coxal cavities large, confluent, open behind.

Mesosternum acute; side pieces reaching the coxal cavities, which are confluent; metasternum long, side pieces narrow.

Elytra gradually narrowed from the base, as long as the abdomen; epipleuræ narrow but distinct, not extending to the tip.

Abdomen with six free ventral segments, the 6th short, deeply emarginate in the male, permitting the 7th to be seen.

Legs long and slender; anterior and middle coxæ large, conical, contiguous, with distinct trochantins; hind coxæ slightly oblique, prominent, concave behind near the tip; tibial spurs long, slender; tarsi filiform, pubescent beneath; claws pectinate, each with a large appendage, as long as the claw itself, and obtusely rounded at the tip.

The characters above given are sufficient to show that the genus Cephaloon should rank as a distinct family. It was placed by Newman, who first described it in Œdemeridæ, by myself in Meloidæ, and more recently by Motschulsky in Melandryidæ. None of these positions will, in my opinion, be found correct. From the Meloidæ it differs by the thorax being as broad at base as the clytra, as well as by the different form of the head. From Melandryidæ it differs not only by the head being constricted at base, but by the lateral suture of the prosternum being wanting, and by the greater number of ventral segments. Its resemblance to Œdemeridæ is more decided, though from them it is at once distinguished by the head being constricted at base, as well as by the peculiar form of the claws.

One species, Cephaloon lepturides Newman (var. C. varians) Hald., is found on plants in the Northern States and in Canada. Two Asiatic species have been recently described by Motschulsky; they are found near the Amoor River.

# FAM. LVII.—MORDELLIDAE.

Mentum trapezoidal, supported by a gular process; ligula prominent, cordiform: palpi 3-jointed, last joint triangular.

Maxille with large, prominent base, and two ciliated lobes; palpi 4-jointed, rather long, with the last joint securiform or cultriform, sometimes transverse.

Head vertical, applied closely to the thorax, suddenly constricted immediately behind the eyes, connected with the

prothorax by a very small neck; eyes small and coarsely granulated in the first tribe, large and finely granulated in the second; labrum prominent; mandibles short, entire at tip, with an internal membranous margin.

Antennæ inserted at the sides of the front, before the eyes, 11-jointed, slender, usually slightly thickened externally.

Prothorax strongly narrowed in front, as wide at base as the elytra; lateral suture quite obvious; coxal cavities large, open behind, confluent.

Mesosternum short, carinated, pointed behind, side pieces attaining the coxal cavities, which are not confluent; metasternum large, but not long, side pieces variable in width.

Elytra narrowed behind, not truncate, leaving exposed the

tip of the abdomen; epipleuræ not distinct.

Abdomen with five or six ventral segments; the last dorsal and sixth ventral are prolonged in the second tribe.

forming an anal style.

Legs, anterior short, posterior usually long; anterior coxæ large, conical, contiguous, without trochantin; middle coxæ not prominent, slightly separated; hind coxæ flat, contiguous, moderate in size in the first, very large in the second tribe; tibial spurs large, hind tibiæ frequently dilated; hind tarsi compressed, long; claws simple in the first, cleft to the base, with the upper portion pectinate, in the second tribe.

Two tribes are thus separated:-

Abdomen not prolonged at tip. Abdomen prolonged at tip.

Anaspini.
Mordellini.

Insects of small size, found on plants; all are pubescent; many are very prettily variegated in color.

#### Tribe I.—ANASPINI.

Body rather fusiform than euneate; hind coxæ not very large, tibiæ slender; claws neither cleft nor serrate; last dorsal segment of the abdomen not prolonged, sixth ventral not visible in Anaspis, but visible in the other two genera; eyes oval, narrowly emarginated, coarsely granulated; antennæ inserted very near the eyes, not serrate; upper surface of the body transversely strigate.

Our genera are three :-

Anterior and middle tarsi with the 3d and 4th joints equal;
Antennæ long, scarcely thickened externally.
Antennæ shorter, last five joints broader.
Anterior and middle tarsi with the 4th joint very small.

Diclidia. Pentaria. Anaspis. Diclidia contains one species from Texas; Pentaria Muls. was separated by me formerly as Anthobates, but under false characters, so that the name should be rejected, and the more recent one adopted. The species are found on each side of the continent, and have the elytra ornamented with broad bands. Anaspis is also found on both sides of the continent.

### Tribe II.-MORDELLINI.

Body cuneiform, pointed behind; hind coxæ very large; hind tibiæ short, dilated, triangular; claws eleft to the base, with the upper portion pectinate; last dorsal segment of abdomen prolonged, forming an anal style or process; eyes large, oval, finely or coarsely granulated; antennæ inserted in front of the eyes, but not very near to them, sometimes serrate.

Our genera may be separated as follows:-

Eyes finely granulated; hind tibiæ with a small, subapical ridge;

Scutellum emarginate; eyes not reaching the occiput. Tomoxia.

Scutellum triangular; eyes reaching the occiput;

Last joint of maxillary palpi very transverse. GLIPA.

Last joint of maxillary palpi triangular, or securiform. Mordella.

Eyes coarsely granulated: hind tibiæ and tarsi with oblique ridges on the outer face;

Hind tibie with one long ridge, and no subapical one. GLIPODES... Hind tibie with subapical and oblique ridges. Mordellistena.

Sphalera Lec., founded on Mordella melæna Germ., does not appear to be sufficiently distinct from genuine Mordella. Glipodes is founded on Mordella sericans Mels., and is very remarkable for the structure of the last joint of the maxillary palpi in the male; it is covered on the under surface with a dense brush of short hair, and from the base on the outer side proceeds a long, bifurcated appendage, the branches of which are as long as the joint itself.

Mordella and Mordellistena occur on both sides of the continent; the other genera are thus far known only in the Atlantic States.

# FAM. LVIII.—ANTHICIDAE.

Mentum trapezoidal, narrower in front, supported by a broad gular process; ligula large, prominent; labial palpi 3-jointed.

Maxillæ with large, exposed base, and two flattened, ciliate

lobes; palpi 4-jointed.

Head somewhat inclined, strongly constricted behind the eyes; neck slender, front somewhat prolonged, labrum prominent; mandibles not extending beyond the labrum, truncate or emarginate at tip.

Antennæ inserted at the sides of the front, immediately before the eyes, 11-jointed, nearly filiform, very rarely (Xy)

lophilus Melsheimeri 3) flabellate.

Prothorax narrower than the elytra at base, lateral suture wanting; anterior coxal cavities open behind, confluent.

Mesosternum pointed behind, usually very slightly separating the coxe, rarely the coxal cavities are confluent; side pieces extending to the cavities; metasternum long, side pieces narrow.

Elytra covering the abdomen, rounded behind; epipleuræ

very narrow.

Abdomen with five free ventral segments, rarely six.

Legs moderate; anterior coxa conical, prominent, contiguous; middle ones subconical, with distinct trochantin, nearly or quite contiguous; hind ones transverse, nearly contiguous in the first three tribes, more distinctly separated in the fourth tribe; tibial spurs small; anterior and middle tarsi 5-jointed; hind tarsi 4-jointed; the penultimate joint of all generally emarginate; claws simple, except in Nematoplus, Pedilus, and Macratria.

I have united the Anthicites and Pedilides of Lacordaire, and excluded from the family Scraptia, which appears to me to be more related to the Melandryide. The family is thus rendered very homogeneous, and divides into four natural tribes:—

Eyes more or less emarginate; hind coxæ approximate;

Head constricted far behind the finely granulated eyes. Pedilini. Head constricted just behind the coarsely granulated eyes. Xylophilini. Eyes elliptical, entire, rather coarsely granulated;

Hind coxæ approximate.

Macratriini.

Hind coxæ somewhat distant.

Anthicini.

#### Tribe I.-PEDILINI.

The species of this tribe are of much larger size than those of the other tribes, varying in size from one-fourth to one-half an inch in length; they are found on flowers.

The head is constricted far behind the eyes, which are tolerably finely granulated, never regularly oval, and always emarginate,

though in some of the species of the second group very slightly so; the neck is not very slender; the hind coxe are nearly contiguous, the intercoxal process being very small and acute.

The genera indicate three groups :-

Claws cleft to the base. Claws slightly dilated at the base. Claws with a broad basal tooth. NEMATOPLI. EURYGENII. PEDILI.

# Group I.—Nematopli.

Nematoplus collaris Lee., a slender black insect with a reddishyellow thorax, alone constitutes this group; the mandibles are acutely emarginate at tip; the epistoma is not separate from the front; the maxillary palpi are but feebly dilated; the middle coxæ are distinctly separated; the abdomen of the male has six ventral segments, the fifth being emarginate; the tarsi are entirely filiform, and the claws are eleft to the base, as in Stenotrachelus.

The insect is very rare, and is found in the Northwestern States.

## Group II.—Eurygenii.

Elongate insects clothed with gray pubescence; the mandibles are broadly truncate at tip; the epistoma is not separate from the front; the maxillary palpi are considerably dilated; the middle coxe are very slightly separated; the abdomen in both sexes has but five ventral segments; the anterior tarsi are somewhat dilated, and the penultimate joint of all is bilobed; the claws are very slightly dilated at base.

Last joint of maxillary palpi broad, securiform. Last joint of maxillary palpi long, cultriform.

EURYGENIUS. STEREOPALPUS.

The three species of the first genus differ in the form of the eyes; in E. Wildii Lee. they are deeply emarginate, in the Californian E. constrictus Lee. slightly, and in E. murinus scareely at all emarginate. Those of the second genus have the eyes very slightly emarginate; in both the eyes are less finely granulated than in the first and third groups.

### Group III .- Pedili.

This group consists of but a single genus, Pedilus, represented by several species in the Atlantic, and one in the Pacific district. They are prettily colored insects, with the thorax globose, polished, and usually yellow; in the males the tips of the elytra are convex and polished, resembling somewhat a vesicle. The mandibles are truncate; the epistoma separated from the front by a transverse suture; the maxillary palpi feebly dilated; the middle eoxe are contiguous; the abdomen of the male has six distinct ventral segments; the penultimate joint of the tarsi is bilobed, and the claws are suddenly dilated at base into a broad tooth.

### Tribe II.—XYLOPHILINI.

A few small species, found on leaves and flowers, are contained in this tribe; they have entirely the form and appearance of species of Anthieus, but are known at once by the emarginate, hairy, and coarsely granulated eyes. None have yet been found in the Pacific district.

The head is much deflexed, and constricted immediately behind the eyes; the epistoma is separate from the front; the neck is very small; the last joint of the maxillary palpi is large and securiform; the middle coxe are contiguous; the hind coxe are nearly contiguous, the intercoxal process being very small; the first joint of the hind tarsi is extremely long; the penultimate joint is bilobed, and the claws are simple.

One species, X. Melsheimeri Lec., is remarkable for the antennæ of the male being flabellate; in another species, X. basalis Lec., the last joint of the antennæ is considerably longer than the others. I do not feel certain that these should be regarded as generic differences.

### Tribe III.—MACRATRIINI.

Two very narrow, brown, pubescent species of Macratria are found in the Atlantic States, on flowers and leaves.

The head is deflexed, constricted far behind the eyes, which are oval, and not at all emarginate, somewhat coarsely granulated, and slightly hairy; the neck is very small; the epistoma is not separate from the front; the maxillary palpi are compressed and dilated, with the last joint large and securiform; the last three joints of the antennæ are longer than the others; the middle coxæ are distinctly separated; the hind coxæ are nearly contiguous; the intercoxal process of the abdomen is very small and acute; the first joint is longer than the others, and the sixth is visible in the male; the penultimate joint of the tarsi is bilobed; the first joint of the hind tarsi is very long; the claws are suddenly and broadly dilated at base.

#### Tribe IV .- ANTHICINI.

Head deflexed, constricted behind the eyes, which are regularly oval, and rather coarsely granulated; the epistoma is not separate from the front; the neck is very small; the mandibles are emarginate at tip; the last joint of the maxillary palpi is moderately dilated; the middle coxe are nearly contiguous in other genera, but absolutely so in Tanarthrus; the hind coxe are moderately separated; the intercoxal process is acute at tip, except in Formicomus, where it is broad and obtuse; the ventral segments are five in both sexes; the penultimate joint of the tarsi is bilobed in our genera, and the claws are simple.

Our genera are :--

Antennæ with the 11th joint equal to the 10th;

Thorax prolonged over the head into a horn.

Tomoderus.

Thorax not prolonged over the head;
Antennæ moniliform; thighs thickened.

Antennæ not moniliform;

Body without wings; humeral angles rounded. Body winged; humeral angles distinct. Formicomus.
Anthicus.

Notoxus.

11th joint of antennæ elongated, almost divided into two. Tanarthrus.

The species are numerous; the genera, except Tanarthrus, are represented on the Atlantic district, but thus far no species of Tomoderus has occurred in the Pacific region. The differences between the second, third, and fourth genera seem to me rather indefinite. Tanarthrus, besides the elongated 11th joint of the antenne, and contiguous middle coxe, is farther remarkable for having the elytra shorter than the abdomen, and subtruncate at the extremity. The genus contains but two species, from the Colorado Desert, one of which, T. salinus Lec., flies and runs on salt mud, after the manner of a Cicindela. The species of Notoxus live on flowers and leaves; those of Anthicus are very numerous; some are found on plants, but the greater number live near the margin of water, especially in sandy localities.

# FAM. LIX.—PYROCHROIDAE.

Mentum trapezoidal, narrowed in front, supported by a large gular process; ligula large, prominent, bilobed, labial palpi 3-jointed.

Maxillæ with large exposed base, and two corneous ciliated

lobes; palpi 4-jointed, moderately dilated.

Head somewhat inclined, strongly constricted a short distance behind the eyes, which are emarginate and not finely granulated, and sometimes very large; neck not very slender. received in the thorax; labrum prominent; mandibles short, emarginate at tip.

Antennæ inserted at the sides of the front just before the eyes, 11-jointed; serrate or subpectinate  $(\mathcal{J})$ , and ramose  $(\mathcal{J})$ ;

rarely (Eupleurida) nearly filiform.

Prothorax narrower than the elytra at base, lateral suture completely wanting; anterior coxal cavities widely open behind, confluent.

Mesosternum pointed behind; side pieces attaining the coxal cavities, which are confluent; metasternum long, side pieces narrow.

Elytra wider than the abdomen, rounded at tip; epipleura

almost wanting, visible only near the base.

Abdomen with five free ventral segments; the 5th in the

male is emarginate, and the 6th is visible.

Legs rather long; anterior coxe large, conical, contiguous; middle coxe conical, contiguous, with distinct trochantin; hind coxe oblique, transverse, slightly separated; tibial spurs small; anterior and middle tarsi 5-jointed; hind tarsi 4-jointed; the penultimate joint is dilated and somewhat prolonged beneath; the claws are simple.

A few insects, from one-third to three-fourths of an inch long, are comprised in this family; our species live under bark, and several are conspicuous for the rufous thorax, which contrasts with the black head and elytra.

The genera are four from the Atlantic States, of which Dendroides is also represented in Russian America:—

Eyes moderate in size, distant;

Antennæ simple.
Antennæ serrate or ramose;

EUPLEURIDA.

Last joint of maxillary palpi long, cultriform.

Ругосикол.

Last joint of maxillary palpi long, oval. Eyes very large, sometimes nearly contiguous.

Schizotus.
Dendroides.

The branches of the male antennæ are rigid in Pyrochroa, and very slender and flexible in Dendroides; in Schizotus they are of

an intermediate form, and somewhat flexible.

Eupleurida is founded on a very remarkable insect, *E. costata* Lec., from the Southern States. It is of a testaceous color (2 unc.

long), with the head black, the front retuse; the thorax is semicircular, with the sides thickened and reflexed, and the middle strongly carinate; this carina is prolonged into a point at the base. The elytra are elongate oval, very coarsely punctured, flattened on the back, with a very strong ridge running from the humerus nearly to the tip, and another very near the margin from near the base to the tip itself, thus causing the appearance of distinct epipleuræ; the elytra are dusky, with a long lateral spot and the tip pale. The consistence of the body is firmer than in the other genera of the family, but I cannot perceive any structural difference of importance except the form of the antennæ, which are not very slender, but cylindrical; the 2d joint is onehalf as long as the third; the last joint of the maxillary palpi is large and securiform; the eyes are distant and moderate in size.

# FAM. LX.—MELOIDAE.

Mentum trapezoidal, supported by a large gular process;

ligula prominent, labial palpi 3-jointed.

Maxillæ with two corneous ciliated lobes, the outer one in some Nemognathini very long and filiform; the inner one

sometimes very small; palpi 4-jointed.

Head much inclined, suddenly constricted far behind the eyes into a small neck, which is not entirely received into the prothorax; eyes variable in form, finely granulated; labrum prominent; mandibles usually not extending beyond the labrum, frequently entire at tip, frequently armed with a small subapical tooth, rarely (Phodaga) emarginate at tip.

Antennæ 11-jointed in our genera, inserted (except in

Phodaga) at the sides of the front, before the eyes.

Prothorax narrower at base than the elytra, lateral suture completely obliterated; prosternum short; coxal cavities large, confluent, widely open behind.

Mesosternum short, triangular, side pieces attaining the coxal cavities, which are confluent; metasternum very short

in the first tribe, generally long in the second.

Elytra variable in form, but when short never truncate: epipleuræ not well defined.

Abdomen with six free ventral segments.

Legs long, anterior and middle eoxæ large, conical, contiguous; hind eoxæ transverse, prominent, more or less concave beneath, nearly contiguous; tibial spurs distinct, those

of the hind tibiæ frequently differing in size and form; anterior and middle tarsi 5-jointed; hind tarsi 4-jointed; penultimate joint almost always cylindrical; claws usually divided at the base, with the inferior portion very slender; rarely not divided, and then armed with a large tooth.

This family contains species of moderate or large size found on plants; they are mostly of a soft consistence, and are remarkable for secreting a peculiar principle, cantharidine, from which they derive the blistering power, which causes them to be used in medicine.

They are equally remarkable in the development of the larva, which assumes successively several forms, in the first of which it is a very small active Pediculus-like parasite infesting bees of different genera.

Two tribes, first properly recognized by Lacordaire are thus separated.

Side pieces of meso- and metathorax covered by the elytra. Meloini. Side pieces of meso- and metathorax visible. Lyttini.

### Tribe I.-MELOINI.

The insects composing this tribe are without wings; the elytra are frequently much shorter than the abdomen, and in one genus are imbricated, or overlap at the suture; the metasternum is very short, so that, except in Henous, the middle coxæ extend partly over the hind coxæ; the side pieces of the meso- and metathorax are entirely covered by the elytra; the claws are sometimes armed with a tooth, sometimes cleft to the base; in this case the upper portion is never pectinate, as in certain genera of the next tribe. The frontal suture is distinct, and the front is prolonged before the insertion of the antennæ.

Our genera are :-

Elytra short, imbricated; claws cleft.

Elytra not imbricated; claws armed with a tooth;
Elytra much shorter than the abdomen, diverging.
Elytra connate, larger than the abdomen.

Elytra subconnate; claws cleft.

HENOUS.

Meloe is generally diffused, and is the only genus represented on the Eastern Continent; Henous is found from Kansas to Texas; Cysteodemus in Arizona and Colorado Desert; the genus Megetra Lec. (Arcana naturæ, 1,127) is founded upon Meloe cancellatus Er., and Cysteodemus vittatus Lec., which occur in New

Mexico and Arizona. I formerly considered these species as constituting a section of Cysteodemus.

## Tribe II.-LYTTINI.

Body generally winged; elytra, in our genera, not shorter than the abdomen, entirely closing together along the suture; metasternum long (except in Apterospasta); middle coxæ not overlapping the hind coxæ; side pieces of meso- and metathorax plainly visible, not covered by the elytra; claws generally cleft to the base, the upper portion sometimes pectinate; very rarely they are armed with a tooth.

Subtribes may be separated as follows:-

Front not prolonged beyond the base of the antennæ.

Front prolonged; frontal suture very distinct;
Mandibles prolonged, acute.

Mandibles obtuse, short.

HORIINI.

Nemognathini. Lyttini.

## Sub-Tribe I.-Horiini.

Head large, squarely truncate behind; front without suture, scarcely extending beyond the insertion of the antennæ, which are not very long, and not thickened towards the extremity; the eyes are transverse, and subreniform; the mandibles extend beyond the labrum, and in some males of foreign species are quite large; the lobes of the maxillæ are not elongated, and the palpi are not dilated; the claws of the tarsi are eleft to the base, the upper portion is finely pectinate, the lower one is very slender; the tarsi are clothed with stiff hairs or bristles beneath.

Three species are known in our fauna: one without wings, Horia sanguinipennis Say, from the Northern and Middle States, and two winged species from the vicinity of the Rocky Mountains. They all belong to the genus Tricrania Lec., which is distinguished from the foreign genera by the last joint of the maxillary palpi being longer than the 3d, and by the triangular head.

### Sub-Tribe II .- Nemognathini.

Head triangular, squarely truncate behind (except in Gnathium); front with distinct transverse suture, prolonged beyond the insertion of the antennæ, which are filiform or very slightly thickened externally; the eyes are transverse, rarely (Gnathium) oval and oblique; the mandibles are acute at tip and extend beyond the labrum; the outer lobe of the maxillæ is generally prolonged into

a slender, flexible process, sometimes nearly as long as the body; the maxillary palpi are not dilated, and the last joint is longer than the preceding; the claws of the tarsi are cleft to the base, the upper portion is strongly pectinate, the lower one equal in length, acute, and generally more slender than the upper; the tarsi are clothed with stiff hairs beneath.

The serrature of the upper part of the claws is not sufficient by itself to separate this from the next sub-tribe, since in it there are certain foreign genera, scarcely to be distinguished in appearance from Lytta, in which the upper part of the claws is quite distinctly serrate; but in my opinion the marked difference in appearance produced by the triangular head, which is usually applied more closely than in Lytta to the square prothorax and especially the more prominent and acute mandibles, evince the propriety of separating the three genera below mentioned from those contained in the next sub-tribe.

Maxillæ with the outer lobe prolonged, setaceous;
Antennæ not thickened externally.
Antennæ thicker towards the tip.
Maxillæ with the outer lobe not prolonged.

Nemognatha.
Gnathium.
Zonitis.

The species of Nemognatha differ like those of Lytta in the size and shape of the spurs of the hind tibiæ; in Gnathium, the prothorax instead of being square, as in the other two genera, is gradually narrowed in front, but, as if to balance this approach towards the next sub-tribe, the mandibles are still longer and more acute than in Nemognatha.

### Sub-Tribe III .- Lyttini (genuini).

Head variable in form; front with a very distinct transverse suture, prolonged beyond the insertion of the antennæ; the eyes are transverse and subreniform, except in Phodaga, where they are regularly oval; the antennæ are variable in form, but inserted in front of the eyes, except in Phodaga and Eupompha, where they are situated between the eyes; the mandibles are thick, and obtuse, rarely (Phodaga) emarginate at tip; the palpi vary in form; the lobes of the maxillæ are not prolonged; the claws of the tarsi are usually cleft to the base; the upper part is not serrate in our genera, and the under part is usually equal in length to the upper one; in Phodaga, Eupompha, Tegrodera, the under portion is connate with the upper one, and only half as long.

Four natural groups appear to exist among our genera:—

Vertex not elevated;

2d joint of antennæ long.

2d joint of antenne much shorter than the 3d.

Vertex elevated; 2d joint of antennæ small; Mandibles obtuse.

Mandibles emarginate.

MACROBASES.
LYTTÆ.

Епромриж.

### Group I.- Macrobases.

I have separated as a distinct group the species included in Lytta division C. of my synopsis.\* The general appearance of the species, and the remarkable sexual characters impressed on the antennæ evidence the correctness of the view here taken.

The eyes are strongly transverse and broadly emarginate; the antennæ are inserted in front of the eyes; the first joint is usually much elongated, especially in the males, frequently compressed and bent in that sex; the second joint is larger in the males than in the females, and is generally longer than the third, sometimes much longer, but in Apterospasta the second is a little shorter than the third; the vertex is not elevated; the last joint of the maxillary palpi is triangular and obliquely truncate; the mandibles are thick and obtuse, with a small tooth near the apex. The anterior thighs have a serieeous spot of hair on the under surface. The spurs of the hind tibiæ are always slender, and the divisions of the claws equal; the tarsi are pubescent beneath.

Two genera are separated as follows:—

Body without wings; metasternum short. Body winged; metasternum long. APTEROSPASTA.
MACROBASIS.

Apterospasta approaches to Henous of the first tribe of this family; it contains two species, Lytta valida Lec. and L. segmenta(ta) Say, found in Texas and Nebraska. Macrobasis contains several species found in the Atlantic and Central districts; none have yet occurred in the regions adjoining the Pacific.

#### Group II .- Lyttae.

The eyes are transverse and broadly emarginate; the antennæ are inserted in front of the eyes, with the second joint much shorter than the third, and except in Pleuropompha, very small; they are sometimes filiform, sometimes with the outer joints larger and rounded; the vertex is not elevated; the last joint of the

<sup>\*</sup> Proc. Acad. Nat. Sc., Phila., VI. 331.

MELOIDAE. 273

maxillary palpi is broadly rounded at tip; the mandibles are truncate, and have a small tooth near the apex; the spurs of the hind tibiæ are variable in form; the divisions of the claws of the tarsi are usually equal; in Calospasta the under one, though separate, is shorter, and in Tegrodera, the under one is shorter, and connate with the upper; the tarsi are pubescent beneath.

Our genera may be thus arranged :-

Penultimate joint of tarsi bilobed.

TETRAONYX.

PYROTA.

Penultimate joint of tarsi cylindrical;

Lower portion of claws equal to the upper, and separate;

Anterior thighs with a sericeous spot; (antenne filiform);

2d joint of ant. equal to half the 3d; elytra costate. Pleuropompha. 2d joint of antennæ very short; elytra even. Epicauta.

Anterior thighs without a sericeous hairy spot;

Antennæ filiform, outer joints cylindrical.

Antennæ thicker externally, outer joints oval or rounded;

Labrum deeply emarginate. Pomphopea.

Labrum slightly emarginate. Lytta.

Labrum slightly emarginate.

Lower portion of claws shorter than the upper, connate;

Labrum not emarginate; body pubescent.

Labrum emarginate; body glabrous.

Calospasta.

Tegrodera.

The form of the spurs of the hind tibiæ varies greatly in Lytta. In Pyrota and Pomphopæa the outer spur is obtuse, and the inner acute. In Pleuropompha, Epicauta, Calospasta, and Tegrodera, both spurs are acute. Lytta and Epicauta are found on both sides of the continent; Pomphopæa and Tetraonyx are confined to the Atlantic States. Calospasta contains but one species. Epicauta elegans Lee., and Tegrodera but one large and beautiful species, T. erosa Lee., both from California. Pleuropompha is founded upon Lytta costata Lee., from New Mexico.

Though there is much difference between the various species Lytta in the form of the outer joints of the antennæ, which are quite transverse in some and elongate in others, the entirely cylindrical shape, which renders the antennæ of Epicauta filiform, is not assumed.

The sexual characters are remarkable in some of the species; thus, in the male of Lytta Nuttalli, the trochanters of the hind legs are armed with a spine; in the male of Pyrota mylabrina and insulata the last joint of the maxillary palpi is ovate, broadly transverse, and flattened, with the under surface concave and spongy. The antennæ of the male of Pteuropompha costata Lec.

are longer than those of the female, and the difference is caused by the elongation of the third, fourth, and ifth joints, which thus become more than twice as long as any of the following ones.

#### Group III.-Eupomphae.

A single New Mexican species, Eupompha fissiceps Lec., is known to me; it has the shape of Lytta, with the thorax and elytra metallic bluish-green, the head and legs yellow, the elytra reticulated, and the head divided by a very deep groove.

The eyes are oval and oblique; the antennæ are filiform, with the second joint very short, and are inserted between the eyes; the vertex is elevated, obtusely rounded, and deeply cleft; the last joint of the maxillary palpi is oval; the mandibles are obtuse, with a subapical tooth; the anterior thighs have no sericeous spot; the outer spur of the hind tibiæ is obtuse; the tarsi are pubescent beneath; the claws are not serrate, the under portion is about one-third shorter than the upper, and connate with it.

In the male the first three joints of the front tarsi are very much swelled, and very convex beneath, and deeply excavated above.

## Group IV .- Phodagae.

Like the preceding, this group contains but a single species, *Phodaga alticeps* Lec., from Arizona; it is entirely black, and finely pubescent.

The eyes are oval and longitudinal; the antennæ are not longer than the head, inserted between the eyes, and filiform, with the second joint very short; the last joint of the maxillary palpi is oval; the labial palpi appear subulate, the last joint being cylindrical, not shorter than the penultimate, which is triangular; the mandibles are deeply emarginate at tip; the head behind the eyes is conical, and the vertex is very prominent; the anterior thighs have no sericeous spot; the spurs of the hind tibiæ are long, slender, and acute; the tarsi are spinous beneath; the claws are not serrate, the under portion is about one-third shorter than the upper, and connate with it.

The male in my collection has only one leg of the middle pair preserved; in it the tibia is dilated, and deeply longitudinally excavated on the inner face.

## FAM. LXI.—RHIPIPHORIDAE.

Mentum trapezoidal, supported by a gular process; ligula membranous, prominent, frequently bilobed; labial palpi 3-jointed.

Maxillae with prominent base, and two lobes, which are connate at base, the inner one sometimes atrophied; maxil-

lary palpi 4-jointed, not dilated.

Head vertical, affixed to the prothorax by a very slender neck, which is entirely contained in the prothorax; vertex usually elevated; eyes large, very finely granulated, except in the first tribe; mandibles not emarginate at tip, entirely corneous, without any membranous border on the inner margin; labrum prominent.

Antennæ 11-jointed (10-jointed in certain females), pectinate or flabellate in the males, frequently serrate in the

females.

Prothorax as large as the elytra at the base, much narrowed in front, lateral suture wanting (in our genera); coxal cavitical large and labeled and the support of the large and the support of the large and the support of the large and the support of the support of the large and the support of the support

ties large, open behind, confluent.

Mesosternum short, declivous, separating the coxæ; side pieces very wide, attaining the coxæ; metasternum large; side pieces narrow in the first, wide with large epimera in the other tribes.

Elytra rarely covering the abdomen, usually narrowed behind, and dehiscent, sometimes (Myodites) very small; rarely (Rhipidius) wanting in the female, in which case the wings are also wanting, and the body is larviform.

Abdomen with free segments, variable in number.

Legs generally long; anterior coxæ large, conical, contiguous, without trochantin, overlying the middle coxæ, which are transverse or oblique, usually slightly separated, without trochantins; hind coxæ transverse, lamellate, contiguous; spurs of tibiæ usually distinct; tarsi filiform, anterior and middle ones 5-jointed, hind ones 4-jointed; claws pectinate or toothed, rarely simple.

The perfect insects are found on flowers; the larvæ of the second tribe are known to be parasitic on Hymenopterous, and those of the fourth on Orthopterous insects.

Four tribes are thus distinguished:—

Elytra as long as the abdomen, not dehiscent.

EVANIOCERINI

Elytra shorter than the abdomen; Oral organs perfect; Middle coxæ contiguous. Middle coxæ widely separated. Oral organs atrophied.

RHIPIPHORINI.
MYODITINI.
RHIPIDIINI.

#### Tribe I.—EVANIOCERINI.

In this tribe, represented in our fauna only by *Pelecotoma flavipes* Mels., from the Atlantic States, the oral organs are perfect; the eyes are emarginate, not very finely granulated, and the antennæ are inserted before them at the sides of the front; the scutellum is not covered by the base of the prothorax; the elytra are as long as the abdomen, and are contiguous along the suture; the middle coxæ are very slightly separated by the narrow mesosternum; the epimera of the metathorax are small, and the episterna are narrow. There are five ventral segments.

The genera belonging to this tribe resemble in form Mordellide, and in one foreign genus (Ctenidia) the lateral margin of the thorax is well defined; it can be distinctly traced in our species. It is very doubtful whether this tribe should be retained as a member of the present family, but nothing is yet known of the habits of the larve.

The genus Pelecotoma is distinguished from foreign genera by the tarsal claws being feebly bidentate, and the vertex not elevated.

#### Tribe II.—RHIPIPHORINI.

Oral organs perfect; eyes entire, very finely granulated; antennæ inserted between the eyes upon the front, biflabellate in the males, serrate in the females; scutellum covered by a lobe of the base of the prothorax; lateral suture of prothorax entirely wanting; elytra not much shorter than the abdomen, pointed behind, not meeting closely along the suture; middle coxæ slightly separated; epimera of metathorax large, episterna wide; ventral segments five; tarsi long; claws bifid at tip.

Cunciform insects with coarsely punctured and sparsely pubescent surface, of varied colors, found upon flowers.

Our species all belong to two genera, both having the vertex very much elevated:—

Labrum long, triangular, maxillæ prolonged. Labrum short, maxillæ not prolonged. Macrosiagon. Emmenadia.

No species has yet occurred in the Pacific district.

#### Tribe III.-MYODITINI.

Oral organs perfect; labrum not visible; eyes not emarginate, very finely granulated; antennæ inserted on the front, inside of the eyes, on a line with their anterior margin, flabellate in both sexes, but with the tenth and eleventh joints connate in the females; seutellum not covered by the prothorax; lateral suture of prothorax entirely wanting; elytra very small, wings not folded; middle coxæ very widely separated; epimera of metathorax large, episterna wide; ventral segments five, with the genital sheath of both sexes prominent.

One genus, Myodites, is contained in this tribe; it is represented by several species from the Atlantic States; they are found on the flowers of Solidago in August.

#### Tribe IV.—RHIPIDIINI.

Oral organs atrophied; eyes very large, finely granulated, occupying the greater part of the head; antennæ (of the males) contiguous, flabellate; prothorax without any trace of lateral suture; scutellum not covered by prothorax; elytra short, pointed, dehiscent; wings not folded; middle coxæ not widely separated; ventral segments eight.

Female without elytra and wings; larviform.

No species of Rhipidius has yet been found in the United States; but as *Blatta germanica*, in which *R. blattarum* is parasitic, has been introduced, it is proper that the attention of observers should be directed to the discovery of its parasite.

# FAM. LXII.—STYLOPIDAE.

Oral organs atrophied, except the mandibles and one pair

of palpi.

Head large, transverse, vertical, prolonged at the sides, forming a stout peduncle, at the end of which are situated the eyes, which are convex, and very coarsely granulated.

Antennæ inserted on the front, at the base of the lateral

processes of the head; forked in our genera.

Prothorax exceedingly short.

Mesothorax short, bearing at each side a slender, coriaceous, club-shaped appendage, with the inner margin membranous; this appendage represents the elytra.

Metathorax very large, greater in bulk than the rest of the body, with the sutures of the dorsal pieces all distinct; the postscutellum is conical and prolonged far over the base of the abdomen; wings very large, fan-shaped, with a few diverging nervures; the epimera are very large, and project behind almost as far as the postscutellum.

Abdomen small, with from seven to nine segments.

Legs short; anterior and middle coxæ cylindrical, prominent; hind coxæ very small, contiguous, quadrate; tibiæ without spurs; tarsi without claws, joints each with a membranous lobe beneath.

Females larviform, always contained in the pupa case.

This family contains a small number of species which, by the degradation of structure have lost all resemblance to the other members of the order Colcoptera. They were, from the period of their discovery to within a few years, considered as a separate order, under the name Strepsiptera, but a knowledge of the transformations, and a more rigid interpretation of the external anatomy has convinced nearly all systematists of the propriety of placing them a family of Colcoptera.

They are parasitic in the bodies of species belonging to various genera of aculeate Hymenoptera; the comparatively large size of these parasites causes a distortion of the abdomen of the Hymenopteron affected, and, on close observation, the heads of the pupa cases may be seen emerging between the segments. The head of the pupa case of the male is convex, that of the female is flat; specimens containing male pupae can be kept confined with proper food until the parasite is hatched.

But two genera are yet known in North America, in both of which the tarsi are 4-jointed.

Antennæ with six joints. Antennæ with four joints. STYLOPS.
XENOS.

Stylops inhabits bees of the genus Andræna; I have never met with specimens. Xenos Peckii lives in our common wasp Polistes fuscata. I have seen stylopized individuals of Odynerus quadricornis, and of a large species of Splex.

It is very desirable that observers in the United States should turn their attention to the laborious but interesting task of collecting the species of this family.

# INDEX.

ACANTHOCERINI, 129 Acanthocerus, 129 Acephorus, 13 Acidota, 70 Acilius, 42 Acletus, 192 Acmæodera, 155 Acrepis, 208 Acritus, 77 Actenodes, 154 Acylophorus, 64 Adelina, 238 ADELININI, 237 Adelocera, 164 Adelops, 50 Adranes, 55 Adrastus, 169 Ægialia, 127 Aegialites, 242 Aegialitidae, 241 Æolus, 168 Aepus, 33 Agabus, 41 Agaosoma, 31 Agathidium, 51 Agonoderus, 32 AGRILINI, 155 Agrilus, 156 Agriotes, 169 AGRYPNINI, 163 Agrypnus, 164 Alaus, 164 Aleochara, 61 ALEOCHARINI, 60 Alindria, 88 Allecula, 244 Allaocnemis, 208 Allonyx, 193 Allorhina, 148 Alobus, 138 Alphitobius, 233 Amara, 27 Amblychila, 3 Ammodonus, 227 Amphasia, 32 Amphicerus, 208 Amphichroum, 70 Amphicrossus, 84 Amphicyrta, 111 AMPHICYRTINI, 111 Amphidora, 239

Amphizoa, 37 Amphizoidae, 36 Anachilus, 175 Anaedus, 232 Anaspini, 261 Anaspis, 261 Anatrichis, 29 Anchastus, 167 Anchomma, 90 Anchytarsus, 179 Ancylochira, 152 Ancyronyx, 117 Ancyrophorus, 69 Androchirus, 244 Anelastes, 161 Anepsiini, 215 Anepsius, 215 Aniara, 238 Anillus, 36 Anisodactylus, 32 Anisomera, 41 Anisotoma, 51 Anisotomini, 51 Anobiidae, 202 Anobiini, 203 Anobium, 204 Anomala, 142 Anomoglossus, 28 Anophthalmus, 35 Anorus, 179 Anthaxia, 153 Antherophagus, 98 Anthicidae, 262 Anthicini, 266 Anthieus, 266 Anthobates, 262 Anthobium, 70 Anthocomus, 192 Anthophagus, 70 Anthrenus, 108 Apenes, 24 Aphanobius, 169 Aphanotus, 233 APRIODITINI, 126 Aphodius, 127 Aphonus, 145 Aphricus, 173 Aplastus, 174 Apocellus, 69 Apocrypha, 217 APOCRYPHINI, 217

Apristus, 23 Apsectus, 109 Apsena, 228 Apterospasta, 272 Araeoschizus, 217 Ardistomis, 13 Arthmius, 57 Arthromacra, 246 Asaphes, 171 Asbolus, 220 Asclera, 259 Asida, 221 Asididae, 218 ASIDINI, 220 Aspidoglossa, 13 Astrotus, 221 ATEUCHINI, 124 Athous, 170 Athyreus, 128 Atimeles, 61 Atomaria, 100 Atomariini, 99 Atranus, 28 Attagenus, 108 Attalus, 192 Auchmobius, 214 Aulonium, 91 Axinopalpus, 23

Bacanius, 76 Bactridium, 86 Badister, 27 Bæocera, 79 Baptolinus, 65 Batrisus, 57 Batulius, 215 Belonuchus, 65 Bembidiini, 35 Bembidium, 36 Berginus, 105 Berosus, 46 Betarmon, 169 Bius, 231 Bladus, 171 Blapstinus, 227 BLAPTINI, 225 Blauta, 166 Blechrus, 23 Bledius, 69 Blemus, 36 Blethisa, 7

Bolbocerus, 128 BOLETOPHAGINI, 235 Boletophagus, 236 Bolitobius, 63 Bolitochara, 61 Bomius, 24 Bonvouloiria, 102 Boros, 256 Bostrichidae, 206 Bostrichini, 207 Bostrichus, 208 Bothrideres, 91 BOTHRIDERINI, 91 Brachinini, 18 Brachinus, 18 Brachycrepis, 167 Brachynotus, 188 Brachypterini, 82 Brachypterus, 82 Brachys, 157 Bradycellus, 33 Branchini, 222 Branchus, 222 Brathinidae, 52 Brathinus, 52 Brontes, 95 BRONTINI, 95 Broscini, 29 Bryaxis, 57 Bryoporus, 63 Buprestidae, 159 BUPRESTINI, 151 Byrrhidae, 109, 111 BYRRHINI, 111 Byrrhus, 112 Byturidae, 106 Byturosomus, 193 Byturus, 106

Cacotemnus, 204 Caenia, 183 Calathus, 21 Callida, 24 Calopteron, 183 Calopus, 258 Calosoma, 10 Calospasta, 273 Calyptocephalus, 184 Calyptomerus, 52 Campylus, 170 Canthon, 125 Capnochroa, 244 Carabidae, 4, 5 CARABINI, 9 Carabus, 10 Carcinops, 77 Cardiophorus, 166 Carebara, 251 CARPOPHILINI, 82 Carpophilus, 83 Casnonia, 21 Catogenus, 94 Catops, 50 Catoptrichus, 50

Cebrionidae, 174 Cebrio, 175 Cedius, 56 Centrioptera, 220 Centronopus, 230 Ceophyllus, 56 Cephalistes, 192 Cephaloidae, 259 Cephaloon, 260 Cephennium, 54 Ceracis, 210 Cercocerus, 57 Cercus, 82 Cercyon, 47 Ccrophytidae, 162 Cerophytum, 162 Cereuopus, 228 CERUCHINI, 121 Ceruchus, 121 CERYLINI, 92 Cerylon, 92 CETONIINI, 147 Ceuthocerus, 78 CHALCOLEPIDIINI, 164 Chalcolepidius, 164 Chalcophora, 152 Chalepus, 144 Chariessa, 197 Charopus, 192 CHAULIOGNATHINI, 186 Chauliognathus, 186 Chelonariidae, 112 Chelonarium, 112 CHLENIINI, 28 Chlænius, 28 Chœridium, 125 Chromatia, 244 Chrysobothris, 153 Chrysophana, 155 Cibdelis, 230 Cicindela, 3 Cicindelidae, 1 Cicindelini, 3 Cicones, 90 Cinyra, 152 Cioidae, 209 Cis, 210 Cistela, 244 Cistelidac, 242 CLAMBINI, 51 Clambus, 52 Clavigeridae, 55 Cleridae, 194 CLERINI, 195 Cleronomus, 196 Clerus, 196 Clinidium, 93 Clivina, 13 Cnemidotus, 39 Coelocnemis, 230 Coelostethus, 204 Coelus, 223 Colastus, 83 Colenis, 51

Collops, 191 Colon, 50 Colpius, 40 Colpodes, 26 Colydiidae, 89 COLYDIINI, 90 Colydium, 91 Colymbetes, 41 COLYMBETINI, 41 Colyphus, 196 Conibius, 227 Coniontini, 223 Coniontis, 223 Conipinus, 223 Cononotini, 256 Cononotus, 257 Conosoma, 63 Conotelus, 83 Copelatus, 41 COPRINI, 124 Copris, 126 Coproporus, 63 Coptodera, 25 Coptotomus, 41 Coræbus, 156 Corticaria, 102 Corymbites, 171 CORYMBITINI, 169 Coryphium, 70 Cotalpa, 142 Coxelus, 90 Craniotus, 214 Cratacanthus, 32 Cratidus, 239 Cratognathus, 32 Cratonychus, 170 Cregya, 197 Cremastochilus, 149 Creophilus, 64 Crepidotritus, 167 Crigmus, 168 Crymodes, 256 Cryptadius, 214 Cryptarcha, 84 CRYPTICINI, 234 Crypticus, 235 Cryptobium, 66 CRYPTOGLOSSINI, 219 Cryptoglossa, 220 Cryptohypnus, 166 Cryptophagidae, 96 CRYPTOPHAGINI, 98 Cryptophagus, 99 Cryptopleurum, 47 Cryptorhopalum, 108 Ctenistes, 57 Cucujidae, 93, 95 CUCUJINI, 95 Cucujus, 95 Cupes, 200 Cupesidae, 199 Cybister, 42 CYCHRAMINI, 81 Cychramus, 81

Cychrus, 10
Cyclocephala, 144
CYCLOCEPHALINI, 143
Cyclonotum, 47
Cylistix, 77
Cyllidium, 47
Cymatodera, 196
Cymindis, 24
Cynaeus, 233
Cyparium, 79
Cyphon, 181
Cyrtusa, 51
Cysteodemus, 269
Cytilus, 112

Daénochilus, 66 DACODERINI, 216 Dacoderus, 216 Dascyllidae, 177, 178 Dascyllini, 179 Dascyllus, 179 Dasydera, 133 Dasytes, 193 DASYTINI, 192 Dearthrus, 108 Deltachilum, 125 Dendrocharis, 161 Dendroides, 267 Dendrophagus, 95 Dendrophilus, 76 Dermestes, 107 Dermestidae, 105, 107 Derodontidae, 100 Derodontus, 100 Diaperini, 236 Dianous, 67 Diaperis, 237 Diaphorus, 20 Diazus, 138 Dicælus, 27 Dicerca, 152 Dichelonycha, 136 DICHELONYCHINI, 136 Dichelotarsus, 188 Dichirus, 33 Diclidia, 261 Dicrepidius, 168 Dictyopterus, 183 Didetus, 25 Dineutus, 43 Dinoderus, 208

Dinopsis, 62

Diochus, 65

Dioedus, 238

Diplochila, 27 Diplocelus, 105

Diplotaxis, 138

Discoderus, 32

Distemmus, 69

Ditemnus, 189

Discodemus, 223

Dircaea, 250

Diphyllidae, 105

DIPLOTAXINI, 137

Ditoma, 90 Ditylus, 258 Dolopius, 169 Dorcatoma, 204 Doreus, 121 Drapetes, 158 Drasterius, 166 Drepanus, 15 Dromius, 23 Dromochorus, 4 Dryophilus, 205 DRYPTINI, 20 Dynastes, 146 DYNASTINI, 143, 146 Dyschirius, 13 Dysmathes, 212 Dytiscidac, 38, 39 Dytiscini, 41 Dytiscus, 42

Eanus, 171 Ebaeus, 192 Echiaster, 66 Ectopria, 180 Edaphus, 67 Edrotes, 213 Ega, 21 ELAPHRINI, 7 Elaphrus, 7 Elasmocerus, 195 Elater, 166 Elateridae, 158, 163 ELATERINI, 165 Eleodes, 225 Elmidae, 117 Emathion, 161 Embaphion, 226 Emmenadia, 276 Emmenastus, 214 Emmenotarsus, 193 Emmesa, 251 Empelus, 52 ENDECATOMINI, 207 Endecatomus, 207 Endectus, 91 Eudeodes, 192 Endrosa, 139 Ennearthron, 210 Enopliini, 197 Enoplium, 197 Epantius, 228 Epaphius, 35 Ephalus, 228 Epicauta, 273 Epierus, 76 Epiphanis, 161 EPIPHYSINI, 213 Epistemus, 100 EPITRAGINI, 215 Epitragus, 215 Epuræa, 83 Erirhipis, 148 Eros, 183 Eschatocrepis, 193

Euæsthetus, 67 Eubria, 180 EUBRIINI, 180 Eucærus, 22 EUCINETINI, 181 Encinetus, 181 Eucnemidae, 160 EUCNEMINI, 160 Eucnemis, 161 Eucrada, 202 EUCRADINI, 202 Eugastra, 139 Eugnathus, 19 Eulabis, 228, 233 Eulachus, 91 Eumierus, 54 Eunectes, 42 Eupactus, 203 Euparia, 127 Euphoria, 148 EUPLECTINI, 57 Euplectus, 58 Eupleurida, 267 Eupompha, 274 Eupsenius, 57 Eurea, 180 Eurygenius, 264 Eurymetopon, 214 Euryomia, 148 Eurypogon, 178 Euryporus, 64 Euryptychus, 161 Eurytrichus, 32 Eusattus, 223 Euschides, 221 Eustrophus, 250 Eutheia, 54 Euthysanius, 174 Eutochia, 238 EVANIOCERINI, 276 Evarthrus, 25 Evolenes, 29 Exops, 208

Falagria, 60 Faronus, 58 Formicomus, 266 Fornax, 161

Galerita, 20 Geopinus, 32 Georyssidac, 113 Georyssus, 113 Geotrupes, 128 GEOTRUPINI, 128 GIBBION, 202 GLAPHYRINI, 133 Glipa, 262 Glipodes, 262 Glycia, 24 Glyptoma, 72 Glyptotus, 230 Gnathium, 271 Gnathocerus, 233 Gnathoneus, 77 GNATHOSIINI, 213 Gnorimus, 149 Gyascutus, 152 Gymnetis, 148 Gynandropus, 33 Gynandrotarsus, 33 Gynnis, 139 Gyretes, 43 Gyrinidae, 42 Gyrinus, 43 Gyroniæna, 62

Hadrotes, 64 Haliplidae, 39 Haliplus, 39 Hallomenus, 250 Hapalorhinus, 192 Haplandrus, 230 Haplochile, 30 Haploderus, 69 HAPLOSTETHINI, 155 Haplostethus, 155 Harpalidae, 16 HARPALINI, 31 Harpalus, 33 Hedobia, 202 Helichus, 117 Heliopates, 227 Helluomorpha, 19 HELLUONINI, 19 Helodes, 181 Helodidae, 179 Helodini, 181 HELOPHORINI, 45 Helophorus, 45 HELOPINI, 238 Helops, 240 Hemicoelus, 204 Hemipeplidae, 96 Hemipeplus, 96 Hemirhipini, 164 Hemirhipus, 164 Henous, 269 Hesperobænus, 86 Hetærius, 76 Heteroceridae, 117 Heterocerns, 118 Heteroderes, 168 HETEROTARSINI, 232 Heterothops, 64 HISTRINI, 75 Hister, 76 Histeridae, 73, 74 Holeiophorus, 27 Hololepta, 75 Hololeptini, 74 Holoparamecus, 102 Homalota, 61 Hoplandria, 61 Hoplia, 134 Hopliini, 135 Hoplocephala, 237 Horia, 270

HORIINI, 270 Hybosorini, 127 Hybosorns, 127 Hydaticus, 42 Hydræna, 45 Hydnobins, 51 Hydnocera, 196 Hydrobiini, 46 Hydrobius, 47 Hydrocharis, 46 Hydrochus, 45 Hydrophilidae, 43 HYDROPHILINI, 46 Hydrophilus, 46 Hydrous, 46 Hylochares, 161 Hylocoetus, 199 Hypocyptus, 62 Hyporhagus, 238 Hyporhagus, 247 Hypotelus, 72 Hypotrichia, 137 Hypulus, 250

Ichnea, 197
Ilybius, 41
Iphthimus, 230
IPINI, 84
Ips, 84
Ischiodontus, 168
Isomalus, 72

JULODINI, 154

Laccobius, 46 LACCONOTINI, 254 Lacconotus, 255 Laccophilus, 41 Lachnocrepis, 29 Lachnophorus, 21 Lachnosterna, 139 Læmophlæus, 95 Lagria, 246 Lagriidae, 245 Lampyridae, 182, 183 LAMPYRINI, 183 Lara, 116 Laricobius, 198 LARINI, 116 Lasconotus, 90 Lasiopus, 134 Lathridiidae, 101 Lathridius, 102 Lathrimæum, 70 Lathrium, 71 Lathrobium, 66 Lebasiella, 198 Lebia, 23 LEBIINI, 22 Leistus, 10 Leptacinus, 65 Leptolinus, 65

Leptotrachelus, 21

Lesteva, 70

Leucoparyhus, 63 Lichnanthe, 133 Ligyrus, 145 Limonius, 170 Limnichini, 112 Limnichus, 112 Limnius, 117 Lioderma, 75 Liparocephalus, 66 Lispinus, 72 Listotrophus, 64 Listrochelus, 139 Listrus, 193 Litargus, 105 Lithocharis, 66 Litochrus, 81 Lobetus, 189 Loberus, 98 Lobiopa, 83 Lophoglossus, 27 Loricera, 7 LORICERINI, 7 Loxandrus, 27 Lucanidae, 119 Lucanus, 121 LUCANINI, 120 Lucidota, 184 LUCIOLINI, 184 Ludius, 168 Lutrochus, 117 LYCINI, 183 Lyctidae, 208 Lyctus, 209 Lycus, 183 Lymexylidae, 198 Lymexylon, 199 Lymnæum, 36 Lyrosoma, 50 Lytta, 273 LYTTINI, 270, 271

Macratria, 265 MACRATRIINI, 265 Macrobasis, 272 MACRODACTYLINI, 136 Macrodactylus, 136 Macronychus, 117 MACROPHYLLINI, 140 Macropogon, 178 MACROPOGONINI, 178 Macrosiagon, 276 Malachidae, 190 MALACHINI, 191 Malachius, 192 Malthacus, 188 Malthinus, 189 Malthodes, 189 Manticorini, 3 Marginus, 105 Matus, 41 MEGACEPHALINI, 3 Megalops, 68 Megapenthes, 166 Megarthrus, 71

Megasternum, 47 Megetra, 269 Melanactes, 172 Melandrya, 251 Melandryidae, 247 MELANDRYINI, 248 Melanophila, 153 Melanotus, 32, 170 Melasis, 160 MELASINI, 160 Meligethes, 83 Meloë, 269 Meloidae, 268 Meloini, 269 Melolontha, 140 Melolonthidae, 131 Melolonthini, 138 Melyris, 193 MERACANTHINI, 240 Meracantha, 241 Merinus, 230 Metabletus, 23 Metonius, 157 METRIINI, 10 Metrius, 10 Mezium, 202 Micralymma, 70 Micrixys, 18 Microlipus, 192 Micropeplidae, 72 Micropeplus, 72 Microrhagus, 161 Microschatia, 221 Microstemma, 54 Microtonus, 258 Miscodera, 29 Monocrepidius, 168 Monommidae, 246 Monotoma, 86 Monotomidae, 85 Mordella, 262 Mordellidae, 260 Mordellini, 262 Mordellistena, 262 Morio, 19 Morionini, 19 Morychus, 111 Murmidiidae, 78 Murmidius, 78 Myas, 26 Mycetochares, 244 Mycetophagidae, 104 Mycetophagus, 105 Mycetoporus, 63 Mycteridae, 253 MYCTERINI, 254 Mycterus, 254 Myllæna, 62 Myodites, 277 Myoditini, 277 Myrmecochara, 61 Myrmedonia, 61

Nacerdes, 258

Narthecius, 95 Nausibius, 94 Neatus, 233 Nebria, 10 Necrobia, 198 Necrophilus, 50 Necrophorus, 50 Nelites, 237 Nematidium, 91 Nematodes, 161 Nematoplus, 264 NEMOGNATHINI, 270 Nemognatha, 271 Nemosoma, 88 Nemotarsus, 23 Nicagini, 130 Nicagus, 130 Nicobium, 204 Niptus, 202 Nitidula, 83 Nitidulidae, 81 NITIDULINI, 83 Nomaretus, 10 Nomophlœus, 86 Noserus, 216 Nosodendridae, 110 Nosodendron, 110 Nosoderma, 216 Nosodes, 88 Nossidium, 80 Nothodes, 171 Nothopus, 32 Nothus, 252 Notibius, 227 Notiophilus, 10 Notoxus, 266 Nyctobates, 230 NYCTOPORINI, 219 Nyctoporus, 219

Ochina, 178 Ochodæus, 127 Ochthebius, 45 Ocypus, 65 ODOCANTHINI, 20 Odontæus, 128 Oedemeridae, 258 Oedostethus, 166 Oestodes, 171 Olibrus, 81 Oligomerus, 204 Olisthærus, 71 Ologlyptus, 221 Olophrum, 70 OMALINI, 70 Omalium, 70 Omalodes, 77 Omethes, 187 Omophrou, 6 OMOPHRONINI, 6 Omorgus, 131 Omosita, 83 Omus, 3 ONCERINI, 133

Oncerus, 134 Onitis, 126 Onthophagus, 126 Onthophilus, 76 Oochila, 220 Oodes, 29 OPATRINI, 227 Opatrinus, 226 Opatrum, 227 Opetiopalpus, 198 Orchesia, 250 Orphilus, 109 ORPHNINI, 127 Orsonyx, 138 Orthopleura, 197 Orthostethus, 168 ORYCTINI, 144 Osmoderma, 149 Osorius, 69 Othius, 65 Othniidae, 102 Othnius, 103 Oxylæmus, 91 Oxypoda, 61 Oxyporus, 68 OXYTELINI, 68 Oxytelus, 69 Ozænidac, 14 OZÆNINI, 14 Ozognathus, 205

Pachyergus, 230

PEDERINI, 65 Pæderus, 66 Palaminus, 66 Pallodes, 84 PANAGÆINI, 18 Panagæus, 19 Pangus, 32 Paramecosoma, 99 Paratenetus, 232 Parnidae, 114, 115 PARNINI, 116 Paromalus, 76 Pasimachus, 13 Passalini, 121 Passalus, 121 Passandridae, 94 Patrobus, 34 Pediacus, 95 PEDILINI, 263 Pedilophorus, 111 Pedilus, 264 PEDININI, 226 Pedinus, 212 Pelecotoma, 276 Pelecyphorus, 221 Pelidnota, 142 Pelonium, 198 Pelonomus, 117 Peltastica, 88 Peltasticidae, 88 Peltidae, 88 Peltis, 88

Pentaria, 261

Penthe, 249

Pericompsus, 36 Perilypus, 196 PEROTHOPINI, 162 Perothops, 162 Petalium, 204 Phalacridae, 80 Phalacrus, 81 Phaleria, 234 PHALERIINI, 234 Phanæus, 126 Phausis, 184 Phelister, 176 Phellidius, 236 Phellopsis, 216 Phengodes, 185 PHENGODINI, 185 Phenolia, 83 PHILEURINI, T46 Phileurus, 146 Philhydrus, 47 Philodes, 33 Philolithus, 222 Philonthus, 65 Philophuga, 24 Philotecnus, 24 Philotermes, 61 Philothermus, 92 Philoxylon, 205 Phlegon, 161 PHLEOCHARINI, 71 Phlæodes, 216 Phleopera, 61 Phleotrya, 250 Phobetus, 140 Phodaga, 274 Photinus, 184 Photuris, 184 Phryganophilus, 251 Phyconomus, 86 Phyllobænus, 197 Physemus, 112 Phytosus, 61 Piestidae, 72 Pinacodera, 24 Pinophilus, 66 Piosoma, 32 Pityobius, 170 Pityophagus, 84 Placusa, 61 PLASTOCERINI, 172 Plastocerus, 174 Platycerus, 121 Platydema, 237 Platynus, 26 Platysoma, 77 Platystethus, 69 Plegaderus, 77 Pleocoma, 128 PLEOCOMINI, 128 Pleotomus, 184 Pleuridium, 91 Pieuropompha, 273

Plusiotis, 142 Plochionus, 23 Pocadius, 83 Podabrus, 188 Pœcilonota, 152 Pacilus, 26 Pogonini, 34 Pogonus, 34 Polemius, 189 Polycaon, 208 Polycesta, 155 Polymechus, 145 Polypleurus, 229 Pomphopœa, 273 Porrhodites, 70 Prateus, 238 Priognathus, 256 Prionocyphon, 181 Priocera, 196 Prionychus, 244 Pristoscelis, 193 Prognatha, 72 PROMECOGNATHINI, 11 Promecognathus, 11 Prometopia, 83 Promus, 226 Prothalpia, 251 PROTEININI, 71 Proteinus, 71 Psammodius, 127 Pselaphidae, 54, 56 PSELAPHINI, 56 Pselaphus, 57 Psephenidae, 115 Psephenus, 115 PSEUDOMORPHINI, 15 Pseudomorphus, 15 Pseudophanus, 96 Psiloenemus, 149 Psiloptera, 152 Psilopyga, 83 Psiloscelis, 77 Psoini, 208 Psydrus, 30 Ptinidae, 200, 201 Ptenidium, 80 Pteroloma, 50 PTEROSTICHINI, 25 Pterostichus, 27 PTEROTINI, 185 Pterotus, 185 PTILININI, 206 Ptilinus, 206 Ptilium, 80 Ptilodactyla, 179 PTILODACTYLINI, 179 PTININI, 202 Ptinodes, 204 Ptinus, 202 Ptosima, 155 Pycnomerini, 91 Pycnomerus, 91 Pyrochroidae, 266 Pyrochroa, 267

Pyrophorus, 171 Pyrota, 273 Pythidae, 255 PYTHINI, 256 Pytho, 256

Quedius, 64.

Rembus, 28 RHADALINI, 194 Rhadalus, 194 Rhadine, 26 Rhagodera, 90 Rhagonycha, 189 Rhexius, 57 Rhinosimus, 257 Rhipiceridae, 175 Rhipidandrus, 236 Rhipiphoridae, 275 **Вигририонии**, 276 RHIPIDIINI, 277 Rhipidius, 277 Rhizopertha, 208 RHIZOPHAGINI, 84 Rhizophagus, 85 Rhombodera, 25 Rhyssodes, 93 Rhyssodidae, 92 RUTELINI, 141

Sacodes, 181 Salpingini, 257 Salpingus, 257 Sandalus, 176 Saprinus, 77 Scalopterus, 192 Scaphidema, 237 Scaphidiidae, 78 Scaphidium, 79 Scaphisoma, Scaphium, 79 Scaptolenus, 175 Scarabæidae, 121 S. laparosticti, 123 S. pleurosticti, 141 Scarites, 13 SCARITINI, 12 SCAURINI, 228 Schizogenius, 13 Schizopodidae, 176 Schizopus, 177 Schizotus, 267 Scopæus, 66 Scotobaenus, 230 Scraptia, 253 SCRAPTIINI, 253 Scydmænidae, 53 Scydmænus, 54 Scyrtes, 181 Selenophorus, 33 Serica, 136 SERICINI, 136 Sericoinini, 137 Sericosomus, 171

Serropalpus, 250 Silis, 189 Silpha, 50 Silphidae, 48 SILPHINI, 49 Simplocaria, 111 SINODENDRINI, 121 Sinodendron, 121 Sinoxylon, 208 Sphalera, 262 Spercheus, 45 Sperchopsis, 47 SPHÆRIDIINI, 47 Sphæridium, 47 Sphærites, 50 SPHÆRITINI, 50 Sphæroderma, 76 Sphæromorphus, 129 Spilotus, 251 Spongopus, 32 Staphylinidae, 58, 59 STAPHYLININI, 63 Statyra, 246 Stelidota, 83 Stenelmis, 117 STENINI, 66 Stenochia, 214 Stenochidus, 244 Stenocolus, 179 Stenolophus, 33 STENOMORPHINI, 30 Stenomorphus, 31 STENOSINI, 217 STENOTRACHELINI, 252 Stenotrachelus, 252 Stenotrichus, 239 Stenous, 29 Stenus, 67 Stephanucha, 148 Stereopalpus, 264 Stigmatoma, 244 Stilicus, 66 Stilicopsis, 66 Strategus, 146 Strigoderma, 142 STRONGYLIINI, 241 Strongylium, 241 Stylopidae, 277 Stylops, 278 Sunius, 66 Sylvanidac, 94 Sylvanus, 94 Syncalypta, 112 Synchita, 90

SYNCHITING, 90

Synchroa, 249 Syntomium, 69

Tachinus, 63 TACHYPORINI, 62 Tachyporus, 63 Tachys, 36 Tachyusa, 61 Tanaops, 192 Tanarthrus, 266 Tanyrhinus, 257 Taphrocerus, 157 Tarsostenus, 196 Tegrodera, 273 Telephanidae, 96 Telepĥanus, 96 Telephoridae, 186 TELEPHORINI, 187 Telephorus, 188 TELMATOPHILINI, 98 Telmatophilus, 98 Temnochila, 88 Tenebrio, 231 Tenebrionidae,210,223 Tenebrionini, 229 Tentyriidae, 212 Teretrius, 77 Tetracha, 3 Tetragonoderus, 23 Tetraonyx, 273 Tetratoma, 248 Tetratomini, 248 Thalpius, 20 Thanasimus, 196 Thaneroclerus, 196 Tharops, 160 Tharsus, 233 THINOBATINI, 214 Thinopinus, 64 Throscidae, 157 Throscus, 158 Thyce, 140 Thymalus, 88 Tillus, 196 Tmesiphorus, 56 Tomarus, 99 Tomoderus, 266 Tomoxia, 262 Tostegoptera, 139 Toxidium, 79 TRACHYPACHINI, 8 Trachypachys, 8 TRACHYSCELINI, 234 Trachyscelis, 234 Trechicus, 23 TRECHINI, 34 Trechus, 35 Tribalus, 76 Tribolium, 233

Tribrachys, 83 Trichtini, 149 Trichius, 149 Trichochrous, 193 Trichodes, 196 Trichodesma, 204 Trichopterygidae, 79 Trichopteryx, 80 Tricrania. 270 Trigonophorus, 64 Trimium, 58 Trimytis, 214 Triorophus, 214 Triphyllus, 105 TROGINI, 131 Trogoderma, 108 Trogophlæns, 59 Trogosita, 88 Trogositidae, 86, 87 Trogoxylon, 209 Trotomma, 251 Trox, 131 Trypherus, 189 Trypopitys, 204 Tychus, 57 Tylistus, 203 Typhæa, 105 Tyrus, 57 Tytthonyx, 189 Uloma, 233 ULOMINI, 232 Ulosonia, 233 Upis, 230

Valgus, 149

Xantholinus, 65 Xenos, 278 Xestobium, 205 Xestonotus, 32 Xyletinus, 204 Xylita, 251 Xylophilus, 265 Xylophilus, 265 Xylopinus, 230 Xyloryctes, 146 Xylotrogus, 209

Zenoa, 176 Zilora, 251 Zonitis, 271 Zopherus, 216 Zopherus, 216 Zophosis, 223 Zuphium, 20

### NOTE.

The second part of this work will contain those families embraced in the divisions Tetramera and Trimera of the older authors; in them, the penultimate joint of the tarsi is closely connate with the last joint, and forms merely an enlargement at the base of it.

I am now preparing a synonymical list of the species of Coleoptera of America north of Mexico. For the purpose of rendering the work as complete as possible, it is very desirable that increased collections should be made in the western portions of the Continent, especially in Texas, New Mexico, and the regions west of the Rocky Mountains. I would therefore appeal to those who may be willing to make collections within the regions mentioned, to aid me in this work. Due credit shall be given in my publications for the assistance received, and, when desired, the duplicates, properly named, shall be returned to the persons collecting.

Pages 1-208 were published in May, 1861; pages 209-278 in March, 1862.

J. L. LEC.

# SMITHSONIAN MISCELLANEOUS COLLECTIONS.

# CATALOGUE

 $\mathbf{or}$ 

# PUBLICATIONS OF SOCIETIES

AND OF

# OTHER PERIODICAL WORKS

IN THE LIBRARY OF

# THE SMITHSONIAN INSTITUTION,

JULY 1, 1858.

## FOREIGN WORKS.



WASHINGTON: SMITHSONIAN INSTITUTION. 1859.



# NOTICE.

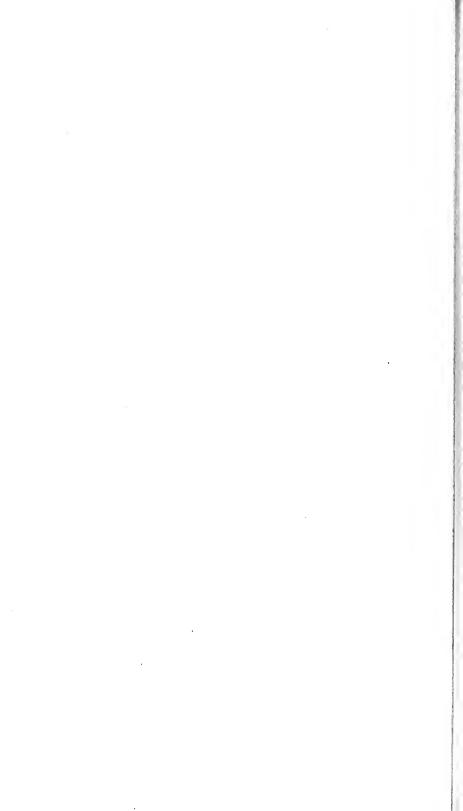
THE following catalogue includes all the regular serial publications of foreign learned societies, state governments, universities, public libraries, and private parties, in possession of the Smithsonian Institution, July 1, 1858. The new publications which have been received while the List was passing through the press, are added in a Supplement.

The Institution, being particularly desirous of completing its collection of works such as are recorded in the catalogue, would respectfully request of its correspondents that deficient series, volumes, or parts of volumes, be supplied, and that any works of the same kind which are not found in the catalogue be added, whether published by the donors or duplicates at their disposal.

JOSEPH HENRY,

Secretary S. I.

Washington, August, 1859.



# PUBLICATIONS

OF

WORKS IN THE LIBRARY OF THE SMITHSONIAN INSTITUTION, JULY 1, 1858.

### SCANDINAVIA.

## Skandinaviske Naturforskeres Forsamling.\*

Förhandlingar vid det af Skandinaviska Naturforskare och Läkare haallna Möde i Götheborg. Aar 1839. Götheborg, 1840. Svo.

Andet Möde, 1840. Kjöbenhavn, 1841. Fjerde Möde, 1844. " 1847. Femte Möde, 1847. " 1849. Sjette Möde, 1851. " 1855. Syvende Möde, 1856. " 1857.

Om Sundhedsvæsenet ombord paa danske Krigsskibe. Et Foredrag ved de Skandinaviske Naturforskeres Sammenkomst i Stockholm i Juli 1851, af Dr. F. B. Mansa. *Kjöbenhavn*. 8vo.

#### Nordisk Universitets Tidskrift.

Nordisk Universitets Tidskrift. I, 111, 1V; II; III, 1, 11, 111. Christiania (and alternately in Lund, Upsala, and Copenhagen), 1855-57. 8vo.

<sup>\*</sup> The works mentioned in this list are generally donations from the society or party under the heading of which they are recorded.

#### SWEDEN.

#### LUND.

## Kongliga Universitetet.

Physiographiska Sällskapets Tidskrift. I. Lund, 1837—1838. Svo.

#### STOCKHOLM.

## Kongliga Svenska Vetenskaps Akademien.

Kongl. Svenska Vetenskaps Academiens Handlingar. I—XL, 1739—1779. Stockholm. 8vo.

Kongl. Vetenskaps Academiens Nya Handlingar. I—XXXIII, 1780—1812. Register: 1739—1812. Stockholm, 1755—1821. 8vo.

Kongl. Vetenskaps Aeademiens Handlingar. För Aar 1813-1854. Stockholm, 1813-1856. 43 vols. 8vo.

Plancher till Kongl. Vetenskaps Academiens Handlingar. 1846. 4to.

Kongliga Svenska Vetenskaps Akademiens Handlingar. Ny Följd I, 1, 1855. Stockholm, 1857. 4to.

Ofversigt af Kongl. Vetenskaps Academiens-Förhandlingar.

Aarg. 1,	1844.	Stockholm,	1845.	8vc
II,	1845.	"	1846.	
III,	1846.	"	1847.	
IV,	1847.	"	1848.	
V,	1848.	"	1849.	
VI,	1849.	"	1850.	
VII,	1850.	"	1851.	
VIII,	1851.	"	1852.	
IX,	1852.	"	1853.	
Χ,	1853.	"	1854.	
XI,	1854.	"	1855.	
XII,	1855.	"	1856.	
XIII,	1856.	"	1857.	

Der Königl. Schwedischen Akademie der Wissenschaften Abhandlungen, aus der Naturlehre, Haushaltungskunst und Mechanik. I—XLI, 1739—1779. *Hamburg* and *Leipzig*, 1749—1783. Svo.

## Kongliga Svenska Vetenskaps Akademien.—Cont'd.

- Zweifaches Universal Register über die ersten XXV Bände von den Abhandlungen aus der Naturlehre, &c. Leipzig, 1771. · 8vo.
- Cronstrand (S. A.). Aarsberättelse i Astronomien. Den 31 Mars 1836. Stockholm, 1836. Svo.
- Pasch (G. E.). Aarsberättelse om Technologiens Framsteg.
  Afgifven den 31 Mars 1837. Stockholm, 1837. 8vo

ı den 31	Mars 1837.	Stockholn	n, $1837$ .	8v
"	1838.	"	1839.	
4.6	1844.	"	1849.	
4.4	1845.	"	1851.	
**	1846.	"	1849.	
4.4	1847.	"	1851.	
4.4	1848 och 184	9. "	1852.	

- Berzelius (Jac.). Jahres-Bericht über die Fortschritte der physischen Wissenschaften. I—XXIII, 1822—43. Tübingen, 1822—43. 8vo.
- Vollständiges Sach- und Namen-Register zu dem ersten bis siebenzehnten Jahrgang vom Jahres-Berieht. Tübingen, 1839. 8vo.
- Berzelius (Jac.). Aarsberättelse om Framstegen i Fysik och Kemi.

Berzelius (Jac.). Aarsberättelse om Framstegen i Kemi och Mineralogi.

Afgifven den 31 Mars 1842. Stockholm, 1842. 8vo.
" 1846. " 1846.
" 1847. " 1848.

Svanberg (L. F.). Aarsberättelse om Framstegen i Kemi, under aar 1847. Stockholm, 1849. 8vo.

" 1848. " 1850. " " 1849. " 1851. "

Edlung (E.). Berättelse om Framstegen i Fysik, under aar 1849. Stockholm, 1851. 8vo.

" 1850. " 1852.

" 1851. " 1854.

## Kongliga Svenska Vetenskaps Akademien.—Cont'd.

Wikström (Joh. Em.). Aarsberättelse om Botaniska Arbeten och Upptäckter för

Aar	1836.	Stockholm,	1838. Svo.	
"	1837.	"	1839.	
"	1839-42.	"	1844.	
"	1843-44, I &	II. "	1849.	
"	1845-48, I &	II. "	1850 & 1855.	
"	1849.	"	1852.	
"	1850.	44	1854.	
44	1852.	"	1857.	

Bihang till de Botaniska Aars-Berättelserna för aaren 1843 och 1844. Stockholm, 1849.

Register öfver de till Kongl. Vetenskaps-Akademien af Joh. Em. Wikstrom afgifna Aars-Berättelser i Botanik, för aaren 1820 till och med 1838. Paa Kongl. Vetenskaps-Akademiens Föranstaltande uprättade af N. J. Anderson. Stockholm, 1852. 8vo.

Wikström (Joh. Em.). Jahresbericht der Königl. Schwedischen Akademie der Wissenschaften über die Fortschritte der Botanik in den Jahren 1839—1842. Der Akademie übergeben am 31 Marz 1840, 1841, 1842, 1843. Regensburg, 1846-47. 8vo.

Anderson (N. J.). Berättelse om Botaniska Arbeten och Upptäckter under aaren 1853 och 1854. Stockholm, 1856. Svo.

FRIES (B. Fr.). Aarsberättelser om nyare Zoologiska Arbeten och Upptäckter. Afgifne den 31 Mars 1835 och 1836. Stockholm, 1837. 8vo.

Sundevall (C. J.). Aarsberättelser om nyare Zoologiska Arbeten och Upptäckter, till Kongl. Vetensk. Akad. afgifne för aaren 1837—1840. Stockholm, 1841. 8vo.

Sundevall (C. J.). Arsberättelse om Framstegen i Vertebrerade Djurens Natural Historia

under aaren 1840—1842. Stockholm, 1844. 8vo. "1843 och 1844. "1847.

Sundevall (Carl J.). Berättelse om Framstegen i Vertebrerade Djurens Natural Historia och Ethnografien under aaren 1845—1850. Stockholm, 1853. 8vo.

## Kongliga Svenska Vetenskaps Akademien.—Cont'd.

Loven (S.). Aarsberättelse om Framstegen i Crustaceernas och de lägre Skelettlösa Djurens Natural Historia under aaren 1840—1842. *Stockholm*, 1844. Svo.

" 1843—1844. " 1848. "

Loven (S.). Berättelse om Framstegen i Molluskernas, Crustaceernas, och de lägre Skelettlösa Djurens Natural Historia under aaren 1845—1849. Stockholm, 1852. 8vo.

Boheman (C. II.). Aarsberättelse om Framstegen i Insekternas, Myriapodernas och Arachnidernas Natural Historia för 1840 och 1842. Stockholm, 1843. 8vo.

1848	"	1844.	"	1845.
1845	"	1846.	"	1847.
1847	"	1848.	"	1851.
1849	, ,,	1850.	"	1852.
1851	. "	1852.	"	1854.
1853	"	1854.	"	1857.

# Kongl. Vitterhets Historie och Antiquitets Akademien.

Kongl. Vitterhets Historie och Antiquitets Akademiens Handlingar. I—XX. Stockholm, 1789—1852. Svo.

Handlingar rörande Skandinaviens Historia. I—X. Stockholm, 1816—1822. 8vo.

Nya Handlingar rörande Skandinaviens Historia. I—IV (XI—XIV). Stockholm, 1824—1828. 8vo.

Handlingar rörande Sveriges äldre, nyare och nyaste Historia, samt Historiska Personer. Utgifna af ett Sällskap.
I—IX. Stockholm, 1830—1833. 8vo.

Samlingar utgifna af Svenska Fornskrift-Süllskapet. I, 1, 11, 111 (1844-5); II, 1, 111 (1845), IV (1849); III, 1 (1846), II (1853), III (1847); IV, 1, II (1847), III (1849), IV (1851), V (1852); V, 1, II (1850); VI, I (1848), II (1851); VII, 1, II (1853). Stockholm. 8vo.

#### Svenska Akademien.

Svenska Akademiens Handlingar, ifraan aar 1786, I—V; ifraan aar 1796, I—XVI, XVIII—XX. Stockholm, 1801—1843. Syo.

#### Miscellanea.

Iduna. En Skrift för den Nordiska Fornaalderns Aalskare.
I—X. Stockholm, 1811—1824. 12mo.

#### UPSALA.

## Kongliga Vetenskaps Societeten.

Nova Acta Regiae Societatis Scientiarum Upsaliensis. II—V, VII—XIV. *Upsaliae*, 1775—1792, 1815—1850. Seriei Tertiae I, II, I, 1855, 1856. 4to.

Svea. Tidskrift för Vetenskap och Konst. I—XIV. Upsala, 1818—1831. Svo.

Skandia. Tidskrift för Vetenskap och Konst. Utgifven af Svenska Litteratur-Föreningen. I—X. Upsala, 1833—1837. 8vo.

DelaGardiska Archivet, eller Handlingar ur Grefl. Dela-Gardiska Bibliotheket pa Löberöd. I—X. Utgifven af P. Wieselgren. Stockholm & Lund, 1831—1838. 8vo.

## NORWAY.

#### BERGEN.

## Bergen's Museum.

Urda, et Norsk Antiquarisk-historisk Tidsskrift, udgivet af Directionen for det Bergenske Museum. I, 1837; II, 1842. Bergen. 4to.

#### CHRISTIANIA.

# Det Kongelige Norske Frederiks Universitet.

Det Kongelige Norske Frederiks Universitets Aarsberetning 1847; 1849—1855. Christiania. 8vo.

Akademiske Love for de Studerende ved det Kongelige Frederiks Universitet. *Christiania*, 1850. 8vo.

Norske Universitet og Skole Annaler VI; VII, 1, 1851—53. Christiania. 8vo.

#### CHRISTIANIA.

## Physiographiske Forening.

Nyt Magazin for Naturvidenskaberne. Udgives af den Physiographiske Forening i Christiania ved Chr. Lang-Berg. IV, II, III, IV; V; VI; VII; VIII; IX. Christiania, 1843—1857. 8vo.

## TRONDHJEM (DRONTHEIM).

## Kongelige Norske Videnskabernes Selskab.

Det Trondhjemske Selskabs Skrifter [Title ehanged at Vol. IV to Det Kongelige Norske Videnskabers Selskabs Skrifter] I—V. Kiöbenhavn, 1761—74. 8vo.

Nye Samling af det Kongelige Norske Videnskabers Selskabs Skrifter I, 1784; II, 1788. Kiöbenhavn. 4to.

Nyeste Samling af det Kongelige Norske Videnskabers-Selskabs Skrifter I. Kjöbenhavn, 1798. 8vo.

Det Kongelige Norske Videnskabersselskabs Skrifter i det 19de Aarhundrede. I, 1817; II, 1824—1827; III, 1829 —1843; IV, I, 1844. Trondhjem. 4to.

## DENMARK.

# KJÖBENHAVN (COPENHAGEN).

## Danske Landmands-Forsamling.

Beretning om den fjerde danske Landmands-Forsamling, afholdt i Kjöbenhavn fra den 5te-9de October 1852. Ved C. F. Linde. *Kjöbenhavn*, 1854. 8vo.

Femte, i Flensborg, 1854. Kjöbenhavn, 1855. Sjette, i Aalborg, 1856. Kjöbenhavn, 1857.

# Kongelige Danske Selskab for Fædrelandets Historie og Sprog.

Danske Magazin, indeholdende allehaande Smaa-Stykker og Anmerkninger til Historiens og Sprogets Oplysning. I—VI. Udgivet af det Kongelige Danske Selskab til den Nordiske Histories og Sprogs Forbedring. Kjöbenhavn, 1745—1752. 4to.

# Kongelige Danske Selskab for Fædrelandets Historie og Sprog.—Continued.

- Nye Danske Magazin, &c. &c. Udgivet af det Kongelige Danske Selskab til den Nordiske Histories og Sprogs Forbedring. I—IV. Kjöbenhavn, 1794—1827. 4to.
- Det Kongelige Danske Selskab for Fædrelandets Historie og Sprog, i dets förste Aarhundrede. Ved E. C. Werlauff. Kjöbenhavn, 1847. 8vo.
- Tillæg til Skriftet: Det Kongelige Danske Selskab for Fædrelandets Historie og Sprog, i dets förste Aarhundrede. Ved E. C. Werlauff, med J. Langebeks Portrait. Kjöbenhavn, 1847. 8vo.

## Det Kongelige Danske Videnskabernes Selskab.

- Det Kongelige Danske Videnskabernes-Selskabs Skrivter for Aarene 1800—1812. I—VI. Kjöbenhavn, 1801—1818. 4to.
- Det Kongelige Danske Videnskabernes Selskabs Philosophiske og Historiske Afhandlinger. I—VII. Kjöbenhavn, 1823—1845. 4to.
- Det Kongelige Danske Videnskabernes Selskabs Naturvidenskabelige og Mathematiske Afhandlinger. I—XII. Kjöbenhavn, 1824—1846. 4to.
- Det Kongelige Danske Videnskabernes Selskabs Skrifter. Femte Række. Historiske og Philosophiske Afdeling. I; II, I, Kjöbenhavn, 1852—1856. 4to.
- Det Kongelige Danske Videnskabernes Selskabs Skrifter. Femte Række. Naturvidenskabelige og Mathematiske Afdeling. I—IV, 1. *Kjöbenhavn*, 1849—1856. 4to.
- Det Kongelige Danske Videnskabernes Selskabs Historie i dets förste Aarhundrede. 1742—1842. Af C. Molbech. Kiöbenhavn, 1843. 8vo.
- Oversigt over det Kgl. Danske Videnskabernes Selskabs Forhandlinger og dets Medlemmers Arbeider i Aarene 1842—1856. Af Selskabets Secretair H. C. Oersted, 1842—1850; G. Forchhammer, 1851—1856. Kjöbenhavn. 8vo.
- Collectanea Meteorologiea sub auspiciis Societatis Scientiarum Danicae edita. Fasc. IV. Hauniae, 1856. 4to.

## Det Kongelige Danske Videnskabernes Selskab.— Continued.

Regesta Diplomatica Historiae Danicae, cura Societatis Regiae Scientiarum Danicae. II, II. Ab anno 1559 ad annum 1588. Kjöbenhavn, 1856. 4to.

## Naturhistoriske Forening.

Videnskabelige Meddelelser fra den Naturhistoriske Forening i Kjöbenhavn, for Aarene 1849—1856. Udgivne af Selskabets Bestyrelse. Kjöbenhavn, 1851—1857. 8vo.

## Kongelige Nordiske Oldskrift-Selskab.

- Antiquariske Annaler. Udgivne ved den Kongelige Commission i Kiöbenhavn for Oldsagers Opbevaring. I—IV, 1812—1827. Kjöbenhavn. 8vo.
- Annaler for Nordisk Oldkyndighed. Udgivne af det Kongelige Nordiske Oldskrift-Selskab. 1836—1854. Kjöbenhavn. 8vo.
- Mémoires de la Société royale des Antiquaires du Nord. 1836—1839, 1840—1844, 1845—1849. Copenhagen. Svo.
- Tidsskrift for Nordisk Oldkyndighed, udgivet af det Nordiske Oldskrift-Selskab. I, II. Kjöbenhavn, 1826, 1829. 8vo.
- Nordisk Tidsskrift for Oldkyndighed. Udgivet af det Kongelige Nordiske Oldskrift-Selskab. I—III, 1832—1836. Kjöbenhavn. 8vo.
- Antiquarisk Tidsskrift. Udgivet af det Kongelige Nordiske Oldskrift-Selskab. 1843—1845; 1846—1848; 1849— 1851 (1852—54). Kjöbenhavn, 1845, 1847, 1852, & 1854. 8vo.
- Die königliche Gesellschaft für Nordische Alterthumskunde zu Kopenhagen. Jahresversammlungen in den Jahren 1848—1852. Svo. pp. 4.
- Royal Society of Northern Antiquaries at Copenhagen. General anniversary meeting 15 Feb. 1851. Svo. pp. 8.
- Société Royale des Antiquaires du Nord. [Tracts.] 1845— 1854. 8vo.
- Société Royale des Antiquaires du Nord. Rapport des Séances Annuelles de 1848—51. 8vo. pp. 16.

## Kongelige Nordiske Oldskrift-Selskab.—Continued.

Société Royale des Antiquaires du Nord à Copenhague. Extrait des Statuts Constitutifs. 8vo. pp. 4.

Société Royale des Antiquaires du Nord. [Mélanges.] 8vo. Report addressed by the Royal Society of Northern Antiquaries to its British and American Members. Copen-

hagen, 1836. Svo.

Leitfaden zur Nordischen Alterthumskunde. Herausgegeben von der Königlichen Gesellschaft für Nordische Alterthumskunde. Kopenhagen, 1837. 8vo.

Antiquitates Americanæ, sive Scriptores Septentrionales Rerum Ante-Columbianarum in America. Samling af de i Nordens Oldskrifter indeholdte Efterretninger om de gamle Nordboers Opdagelsesreiser til America fra det 10de til det 14de Aarhundrede. Edidit Societas Regia Antiquariorum Septentrionalium. Hufniae, 1837. 4to.

Americas Opdagelse i det Tiende Aarhundrede, efter de Nordiske Oldskrifter, ved C. C. RAFN. *Kjöbenhavn*, 1841. 8vo.

Mémoire sur la Découverte de l'Amérique au Dixième Siècle, par Charles Christian Rafn. Copenhague, 1843. 8vo.

The Discovery of America by the Northmen and Connection of the Northmen with the East, by Charles C. Rafn. 8vo. pp. 4.

Same in French and German.

Americas Arctiske Landes gamle Geographie, efter de Nordiske Oldskrifter, ved Charles Christian Rafn. Kjöbenhavn, 1845. 8vo.

Cabinet d'Antiquités Américaines. 8vo. pp. 8.

Guide to Northern Archaeology, by the Royal Society of Northern Antiquaries of Copenhagen. Edited for the use of English readers, by the Right Honorable the EARL of Ellesmere. London, 1848. (2 copies.)

Royal Society of Northern Antiquaries of Copenhagen.
British and Irish Section. [Programme.] 8vo.

Remarks on a Danish Runic Stone from the Eleventh Century, found in the central part of London. By CHARLES CHRISTIAN RAFN. Copenhagen, 1854. 8vo

## Kongelige Nordiske Oldskrift-Selskab.—Continued.

Aperça du Fonds permanent de la Société Royale des Antiquaires du Nord, avec la Liste de ses Membres Fondateurs. 1840, 1850, 1852. 8vo.

# Selskabet for en forbedret Retskrivnings Udbredelse.

Nordisk Ugeskrift, udgivet af Selskabet for en forbedret Retskrivnings Udbredelse. 1837—1838. Köbenhavn. 8vo.

## Skandinaviske Litteratur Selskab.

Det Skandinaviske Litteratur Selskabs Skrifter. I—XXIII.  $Kj\ddot{o}benhavn$ , 1805—1832. 12mo.

Skandinavisk Museum, ved *et Selskab*. 1798, I, II; 1800; 1802; 1803, I, II. *Kiöbenhavn*. 12mo.

#### Veterinair-Selskab.

Veterinair-Selskabets Skrifter. I—III. Kjöbenhavn, 1808 —1818. 8vo.

#### Miscellanea.

Skírnir, ný tídhindi hins Islenzka Bókmentafelags. I—XII. Argáng 1827—1838. *Kaupmannahöfn*, 1827—1838. 8vo.

Rit thess Islenzka Lærdóms-lista Félags. I—XIV. 1780—1793. Kaupmannahöfn, 1781—1796. 12mo.

Nye Samling af Danske Norske og Islandske Jubel-Lærere, &c. I, 1779; II, 1, 1781; II, 1783; III, 1786. Kjöbenhavn. 4to.

Den Nordiske Kirke-Tidende. Udgiven af J. C. Lindberg. Aarg. I—VI. 1833—1838. Kjöbenhavn. 4to.

Brage og Idun, et Nordisk Fjærdingaarsskrift. Udgivet, med Bistand af *Danske*, *Svenske og Normænd*, af Frederik Barfod. I—V, i, 1839—1842. *Kjöbenhavn*. 8vo.

Tidsskrift for Landækonomie. Udgivet af J. C. Hald. I.—VII. Kjöbenhavn, 1831—1839. 8vo.

Bidrag til Kundskab om de danske Provindsers nærværende Tilstand i ækonomisk Henseende. I—IX. *Kjöbenhavn*, 1826—1837. 8vo.

(Part VII is wanting.)

## Miscellanea.—Continued.

Medicinisehes Schriftsteller-Lexieon der jetzt lebenden Aerzte, Wundärzte, Geburtshelfer, Apotheker, und Naturforseher aller gebildeten Völker. Von Adolf Carl Peter Callisen. I—XXXIII. Copenhagen, 1830—1845. 8vo.

Perseus, Journal for den Speculative Idee. Udgiven af Johan Ludvig Heiberg. I, II, 1837, 1838. Kjöbenhavn. Svo.

Naturhistorisk Tidsskrift, udgivet af Henrik Kroyer. I, II. Kjöbenhavn, 1837.

## RUSSIA.

### DORPAT.

## Gelehrte Estnische Gesellschaft zu Dorpat.

Verhandlungen der Gelchrten Estnischen Gesellschaft zu Dorpat. I, 1842–46; II, 1847–52; III, 1, 1854; IV, 1, 1857. *Dorpat* und *Leipzig*. 8vo.

## Kaiserliche Universitats-Sternwarte.

Beobachtungen der Kaiserlichen Universitäts-Sternwarte zu Dorpat, von Dr. J. H. Mædler. XII, XIII, XIV, 1856. Dorpat, 1850. 4to.

#### HELSINGFORS.

## Societas Scientiarum Fennica.

Acta Societatis Scientiarum Fennicae. I, 1842; II, I, II, 1847; III, 1852; IV; V, I, 1856. Helsingforsiae. 4to.

Notiser ur Sällskapets pro Fauna and Flora Fennica Förhandlingar. Bihang till Acta Societatis Scientiarum Fennicae. I, II. Helsingfors, 1848, 1852. 4to.

Observationes Astronomicae in specula Universitatis Litterariae Fennicae factae. I—III, 1824-28. Helsingforsiae. Fol.

Sveriges Rikes Stadslag. Ofevrsättning paa Finska spraaket af Ljungo Thomae, paa Finska Vetenskaps-Societetens

13

#### HELSINGFORS.

#### Societas Scientiarum Fennica.—Continued.

bekostnad utgifven af Wilh. Gabr. Lagus. Helsingfors, 1852. 4to.

Sveriges Rikes Landslag, Stadfästad af Konung Christopher aar 1442. Öfversättning paa Finska spraaket af Ljungo Thomae; paa Finska Vetenskaps-Societetens bekostnad utgifven af Wilh. Gabr. Lagus. Helsingfors, 1852. 4to.

## Observatoire Magnetique et Meteorologique.

Observations faites à l'Observatoire Magnétique et Météorologique de Helsingfors, sous la direction de Jean Jacques Nervander. Première Section.—Observations Magnétiques. I—IV. Deuxième Section.—Observations Météorologiques. I—IV. Helsingfors, 1850. 4to.

## KAZAN (KASAN).

## Imper. Kazanskii Universitet (Imper. Univ. of Kasan).

Utshenyja Zapiski, izdavaemyja *Imperat. Kazanskim Universitetom* (Scientific Memoirs), 1853. Parts I—IV. *Kazan*, 1853–54. 8vo.

## MITAU (MITTAU).

## Kurlændische Gesellschaft fur Literatur und Kunst.

Jahresverhandlungen der Kurländischen Gesellschaft für Literatur und Kunst. I. Mitau, 1819. 4to.

Sendungen der Kurländischen Gesellschaft für Literatur und Kunst. II, 1845; III. Mitau, 1847. 4to.

Arbeiten der Kurländischen Gesellschaft für Literatur und Kunst. I—X. *Mitau*, 1847—1851. 8vo.

# MOSKVA (MOSCOW).

# Societe Imperiale des Naturalistes de Moscou.

Nouveaux Mémoires de la Société Impériale des Naturalistes de Moscou. Tomes IX & X, formant les Tomes XVe et XVIe de la collection. *Moscou*, 1851, 1855. 4to.

Bulletin de la Société Impériale des Naturalistes de Moscou. I—XXX, I, 1829—1857. *Moscou*. 8vo. (Wanting XXI.)

#### ODESSA.

Obshtshestvo Seljskago Khozjaistva Juzhnoi Rossii (Society of Rural Economy of Southern Russia).

Ottshet i Rjetshi, tshitannye v tshrezvytshaĭnom Sobranii Obshtshestva Seljskago Khozjaistva Juzhnoĭ Rossii (Report and Speeches delivered at an extraordinary meeting of the Society of Rural Economy of Southern Russia, on the completion of the 10th year of its existence, December 20th, 1838). Odessa, 1837. Svo. pp. IV, 46, and VII.

Ottshet o Djestvijakh Imper. Obshtshestva Seljskago Khozjaistva Juzhnoĭ Rossii (Report of the Operations of the Society of Rural Economy of Southern Russia). By J. Palimpsestoff, Secretary of the Society. *Odessa*, 1855. Svo.

Demolle (J.). Rutshnaja Kniga Ovtsevodov (Manual of Sheep-Breeding), 2d edit. *Odessa*, 1842. 8vo. pp. 53.

Ottshet Komiteta dlja Pooshtshrenija Shelkovodstva na Odesskoĭ gorodskoĭ Zemlje za 1847i god (Report of the Committee for the Encouragement of Silk-Culture on the Soil of Odessa for the year 1847). Odessa, 1848. 8vo. pp. 20.

Katalog Rasteniam i Sjemenam prodajushtshimsja v Imper. nikitskom Sadje, na juzhnom beregu Kryma (Catalogue of Plants and Seeds sold in the Imperial Nikitski Garden, on the Southern Shore of the Crimea). *Odessa*, 1848. 8vo. pp. 60.

SKALJKOVSKI (A.). Opyt Statistitsheskago Opisanija Novorossiĭskago Kraja (Attempt at a Statistical Description of Southern Russia). Part I.—Geography, Ethnography, and Census. Part II.—Economical Statistics. Odessa, 1850 & 1853. 8vo.

Odesskoe Obshtshestvo Istorii i Drevnostei (Historical and Antiquarian Society of Odessa).

DSHIK (A.). Vosporskoe Tsarstvo s ego paleographitsheskimi i nadgrobnymi Pamjatnikami, raspisnymi Vazami, Planami, Kartami i Vidami (The Kingdom of Bosporus, with its Palæographic and Sepulchral Monuments). Parts I—III. Odessa, 1848–49. 4to.

RUSSIA. 15

#### RIGA.

#### Naturforschender Verein.

Correspondenzblatt des Naturforschenden Vereins zu Riga. Redigirt von Dr. C. J. G. Müller. Jahr I—IX, 1845—1856. Riga, 1846—1857. 8vo.

Arbeiten des Naturforschenden Vereins zu Riga. Redigirt von Dr. Müller und Dr. Sodoffsky. I. Rudolstadt, 1848. 8vo.

#### ST. PETERSBURG.

Gidrographitsheskii Departament Morskago Ministerstva (Hydrographical Department of the Ministry of Marine).

Zapiski Gidrographitsheskago Depo (Memoirs of the Hydrographical Depot). Parts I—V. St. Petersburg, 1835—1837. 4to.

Zapiski Gidrographitsheskago Departamenta Morskago Ministerstva (Memoirs of the Hydrographical Department of the Ministry of Marine). Parts I—IX, 1842—52. St. Petersburg. 8vo.

Gidrographitsheskoe Opisanie Sjevernago Berega Rossii (Hydrographical Description of the Northern Coast of Russia). By Lieut. Capt. M. Reineke. Part I.—White Sea. Part II.—Lapland Coast. St. Petersburg, 1850 & 1843. 4to.

Opisanie Majakov, Bashen i drugikh Predosteregateljnykh dlja Moreplavateleĭ Znakov Rossiĭskoĭ Imperii (Description of the Lighthouses, Towers, and other Beacons for Mariners of the Russian Empire). St. Petersburg, 1853. 4to.

## Imperat. Akademija Nauk (Imp. Academy of Sciences).

Commentarii Aeademiae Scientiarum Imperialis Petropolitanae. I—XIV. 1726—1746. Petropoli, 1728—1751. 4to.

Novi Commentarii Academiae Scientiarum Imperialis Pe-

#### ST. PETERSBURG.

Imperat. Akademija Nauk.—Continued.

tropolitanae. I—XX, 1747—1775. *Petropoli*, 1750— 1776. 4to.

Acta Academiae Scientiarum Imperialis Petropolitanae. Pro annis 1777—1782. Petropoli, 1778—1786. 4to.

Nova Acta Academiae Scientiarum Imperialis Petropolitanae. I—XIII, 1783—1796. Petropoli, 1787—1802. 4to.

Mémoires présentés à l'Académie Impériale des Sciences de St. Pétersbourg par divers savans et lus dans ses séances. I, 1831; II, 1835; III, 1837; IV, 1—v, 1837–43; V, 1846; VI, I, II, III, v, vI, 1846–51; VII, 1854. St. Pétersbourg. 4to.

(Vol. IV, livr. 6, and Vol. VI, livr. 4, wanting.)

Mémoires de l'Académie Impériale des Sciences de St. Pétersbourg. VIe série.—Sciences politiques, Histoire, Philologie. I, 1832; V, 1845; VI, 1844; VII, 1—v, 1843-47; VIII, 1855. St. Pétersbourg. 4to.

(Vols. II, III, IV, and VII, livr. 6, wanting.)

Idem. VIe série.—Sciences mathématiques, physiques, et naturelles. Première partie.—Sciences mathématiques et physiques. I, III—VI; II, 1841; III, 1844; IV, 1850; V, 1853; VI, 1857. St. Pétersbourg. 4to.

(Vol. I, livr. 1 and 2, and titles to Vol. IV, wanting.)

Idem. VIe série.—Sciences mathématiques, physiques, et naturelles. Seconde partie.—Sciences naturelles. I, 1835; II, I, II, IV, V, VI, 1836-38; III, I, II, III, V, VI, 1839-40; IV, 1845; V, 1849; VI, 1849; VII, 1855. St. Pétersbourg. 4to.

(Vol. II, livr. 3, and Vol. III, livr. 4, wanting.)

Bulletin Scientifique publié par l'Académie Impériale des Sciences de Saint-Pétersbourg. I—V, 1836—1839. Saint-Pétersbourg et Leipzig. 4to.

Bulletin de la classe Physico-mathématique de l'Académie Impériale des Sciences de St. Pétersbourg. I, 1843; II, 1844; III, 1845; IV, 1845; V, 1847; VI, 1848; VII, 1849; IX, 1851; X, 1852; XII, 1854; XIII, 1855; RUSSIA. 17

### ST. PETERSBURG.

## Imperat. Akademija Nauk.—Continued.

XIV, 1856; XV, 1857. St. Pétersbourg et Leipzig. 4to. (Vols. VIII and XI wanting.)

Bulletin de la classe Historico-philologique de l'Académie Impériale des Sciences de St. Pétersbourg. I, 1844; II, 1845; III, 1847; IV, 1848; V, 1848; VI, 1849; VII, 1850; VIII, 1851; IX, 1852; X, 1853; XI, 1854; XII, 1855; XIII, 1856. St. Pétersbourg et Leipzig. 4to. (Wanting, Title to Vol. III.)

Compte Rendu de l'Académie Impériale des Sciences de St. Pétersbourg, 1852-55. St. Pétersbourg, 1853-56. Svo.

Observations Météorologiques, faites à l'Académie Impériale des Sciences de St. Pétersbourg, de 1822 à 1835, et ealeulées par M. A. T. Kuppfer. (Lu le 16 Septembre, 1836.) St. Pétersbourg. 4to. [Mém. VI sér.—Sc. math., phys. et nat. Tome IV, 1re partie.]

Résumé des Observations Météorologiques faites dans l'étendue de l'empire de Russie et déposées aux archives météorologiques de l'Académie des Sciences. Publiées, sous les auspices et aux frais de l'Académie des Sciences, par A. T. Kupffer. 1er Cahier. St. Pétersbourg, 1846. 4to.

Mélanges Biologiques tirés du Bulletin Physico-mathématique de l'Académie Impériale des Sciences de St. Pétersbourg. I (1849–53), 1853; II, 1—v, 1854–57. St. Pétersbourg. 8vo.

Recueil de Mémoires présentés à l'Académie des Sciences par les Astronomes de Poulkova ou offerts à l'Observatoire Central par d'autres Astronomes du Pays. I. St. Pétersbourg, 1853. 4to.

Beiträge zur Kenntniss des Russischen Reiches und der angränzenden Länder Asiens. Auf Kosten der Kaiserl. Akademie der Wissenschaften herausgegeben von K. E. v. Baer und Dr. v. Helmersen. I—XIX. St. Petersburg, 1839-54. 8vo.

(XVI wanting.)

#### ST. PETERSBURG.

# Imper. Russkoe Geographitsheskoe Obshtshestvo (Imperial Russian Geographical Society).

Etnographitsheskii Sbornik, izdavaemyi *Imp. Russ. Geographitsheskim Obshtshestvom* (Ethnographical Magazine). Vols. I, II. St. Petersburg, 1843-44. 8vo.

Zapiski Russkago Geographitsheskago Obshtshestva (Memoirs of the Russian Geographical Society). Vols. I—XI. St. Petersburg, 1849-56. 8vo.

Comptes Rendus de la Société Impériale Russe de Géographie pour les années 1853, 1854, 1855, 1856 (in Russian). St. Petersburg, 1855-57. 8vo.

Sostav Imperatorskago Russkago Geographitsheskago Obshtshestva (List of Members of the Imper. Russ. Geographical Society), April, 1856. St. Petersburg, 1856. 8vo. pp. 60.

Vjestnik Imperatorskago Russkago Geographitsheskago Obshtshestva za 1856 god (Messenger of the Imper. Russian Geographical Society for the year 1856). Vols. I.—VI. St. Petersburg, 1856-57. 8vo.

Seljskaja Ljetopis, sostavlennaja iz Nabljudenii, mogushtshikh sluzhitj k Opredjeleniju Klimata Rossii (Rural Year-Book, consisting of Observations that may serve to determine the Climate of Russia, for the year 1851). Year I. St. Petersburg, 1854. fol.

Sbornik Statistitsheskikh Svjedjenii o Rossii, izdavaemyi Statistitsheskim Otdjeleniem *Imperatorskago Russkago Geographitsheskago Obshtshestva* (Magazine of Statistical Details concerning Russia), Vols. I, II. *St. Petersburg*, 1851—1854. 8vo.

# Imperat. Volnoe Ekonomitsheskoe Obshtshestvo (Imperial Free Economical Society).

Trudy Imperatorskago Volnago Ekonomitsheskago Obshtshestva (Transactions of the Imper. Free Economical Society). Years 1842–54, 1856. St. Petersburg, 1842–56. 37 vols. 8vo.

Khozjaistvennaja Gazeta: Ekonomitsheskija Zapiski (Economical Gazette). Years I, III, 1854, 1856. St. Petersburg, 1854, 1857. fol.

RUSSIA. 19

## ST. PETERSBURG.

# Imperat. Volnoe Ekonomitsheskoe Obshtshestvo.— \*\*Continued.

Mittheilungen der kaiserlichen freien ökonomischen Gesellschaft zu St. Petersburg. Jahrg. 1844-56. Leipzig. 8vo.

Khozjaistvennyja i Tekhnitsheskija Rukovodstva, izdavaemyja ot *Imper. Volnago Ekonomitsheskago Obshtshestva* (Economical and Technical Manuals, published by the Free Economical Society):—

Obshtsheponjatnaja Mekhanika primjenennaja k Seljskomu Khozjaistvu, Promyshlenosti i Domovodstvu (Praetical Mechanics applied to Rural Economy, Commerce, and Domestic Economy). By N. PISAREVSKI. Parts I, II. St. Petersburg, 1854. 8vo.

Kurs Tekhnitsheskoi Khimii (Course of Technical Chemistry). By A. Khodneff. Part I.—Inorganic. Part II.—Organic. St. Petersburg, 1855-56. 8vo.

Auswahl öconomischer Abhandlungen welche die freye öconomische Gesellschaft in St. Petersburg in teutscher Sprache erhalten hat. I—IV. St. Petersburg, 1790-93. 8vo.

Preisschriften und Abhandlungen der kayserlichen freyen ökonomischen Gesellschaft zu St. Petersburg. I. St. Petersburg, 1795. Svo.

## Kais. Russ. Mineralogische Gesellschaft.

Schriften der in St. Petersburg gestifteten Russisch-Kaiserlichen Gesellschaft für die gesammte Mineralogie. I, I, II. St. Petersburg, 1842. 8vo.

Verhandlungen der Kaiserlich-Russischen Mineralogischen Gesellschaft zu St. Petersburg. Jahrg. 1842—1851, 1854—1856. St. Petersburg. 8vo.

# L'Etat Major du Corps des Ingenieurs des Mines de Russie.

Annuaire du Journal des Mines de Russie. Introduction et Travaux Statistiques. Années 1835—1842. St. Pétersbourg, 1840—1845. 8vo.

Annuaire Météorologique et Magnétique du corps des Ingénieurs des Mines, ou Recueil d'Observations Météorolo-

### ST. PETERSBURG.

L'Etat Major du Corps des Ingenieurs, etc.— Cont'd. giques et Magnétiques faites dans l'étendue de l'Empire de Russie, &c. Année 1845. St. Pétersbourg, 1848. 8vo.

## Observatoire Physique Central de Russie.

Annales de l'Observatoire Physique Central de Russie. Année 1847-54. St. Pétersbourg, 1850-56. 4to.

Compte Rendu annuel adressé à Mr. le Comte Wrontchenko, ministre des finances, par le directeur de l'Observatoire Physique Central, A. T. Kupffer. Année 1850—1855. St. Pétersbourg, 1851–56. 4to.

Observations Météorologiques faites à Nijné-Taguilsk (Monts-Ourals), gouvernement de Perm. Années 1848—1851. Paris, 1850, 1852. 8vo.

(1850 and 1851 from Prince Demidoff.)

Correspondance Météorologique, publication trimestrielle de l'Administration des Mines de Russie, rédigée par A. T. Kupffer. Année 1850—1854. St. Pétersbourg, 1851—1856. 4to.

Idem. Publication annuelle. Année 1855. St. Pétersbourg, 1857. 4to.

#### Miscellanea.

Neue nordische Beyträge zur physikalischen und geographischen Erd- und Völkerbeschreibung, Naturgeschichte und Ekonomie. I, III, IV. St. Petersburg und Leipzig, 1781-83. Svo.

Morskoi Sbornik, izdavaemyi ot Morskago Utshenago Komiteta (Nautical Magazine). I—XXXI, 1. St. Petersburg, 1848-57. 8vo.

## HOLLAND.

#### AMSTERDAM.

Bataafsch Maatschappij van Taal- en Dichtkunde.

Werken der Bataafsche Maatschappij van Taal- en Dichtkunde. I—V. Amsterdam, 1804-09. 8vo.

#### AMSTERDAM.

- Koninklijke Akademie van Wetenschappen (Konink.-Nederl. Instituut.)
  - Verhandelingen der Koninklijke Akademie van Wetenschappen. I—III. Met Plaaten. Amsterdam, 1854—1856. 4to.
  - Verslagen en Mededeelingen der Koninklijke Akademie van Wetenschappen. Jaarg. I—III. Amsterdam, 1853— 1855. 8vo.
  - Idem. Afdeeling Letterkunde. I, II. Amsterdam, 1856, 1857. 8vo.
  - Idem. Afdeeling Natuurkunde. IV—VI. Amsterdam, 1855-57. 8vo.
  - Koninklijk Besluit tot Forming der Akademie van Wetenschappen. Organisk Reglement der Akademie. Memorie van Toelichting, ingediend door de Staats-Commissie. Personelle staat der Akademie op 28 April 1855. Lijst der Binnen- en Bnitenlandsche Akademien waarmede de Akademie in Verbinding is. Amsterdam, 1855. 4to.
  - Eerste Onderzoekingen met den Mikrometer van Airy, volbragt op het Observatorium der Hoogeschool te Leiden. Door F. Kaiser. Amsterdam, 1857. 4to.
  - Octaviae Querela. Carmen cuius auctori Johanni Van Leeuwen, e vico Zegwaart, certaminis poetici praemium seenndum e legato *Jucobi Henrici Hoeufft* adiudicatum est in consessu publico Academiae Regiae Scientiarum die IX m. Martii anni 1857. *Amsteludami*, 1857. 8vo.

## Koninklijk-Nederlandsche Instituut.

- Verhandelingen der Eerste Klasse van het Hollandsch Instituut van Wetenschappen, Letterkunde en Schoone Kunsten, te Amsterdam. I—III, VI, VII, I. Amsterdam, 1812–23. 4to.
- Nieuwe Verhandelingen der Eerste Klasse van het Koninklijk-Nederlandsche Instituut van Wetenschappen, Letterkunde en Schoone Kunsten, te Amsterdam. VII—X, XII, I, II; XIII, I, II, III. Amsterdam, 1837—1847. 4to.

### AMSTERDAM.

## Koninklijk-Nederlandsche Instituut.—Continued.

- Verhandelingen der Eerste Klasse van het Koninklijk-Nederlandsche Instituut van Wetenschappen, Letterkunde en Schoone Kunsten, te Amsterdam. Derde Reeks. I—V. Amsterdam, 1848—1852. 4vo.
- Verhandelingen der Tweede Klasse van het Koninklijk-Nederlandsche Instituut van Wetenschappen, Letterkunde en Schoone Kunsten. VI, I, II; VII; VIII. Amsterdam, 1836—1843. 4to.
- Tijdschrift voor de Wis- en Natuurkundige Wetenschappen.
  Uitgegeven door de Eerste Klasse van het KoninklijkNederlandsche Instituut van Wetenschappen, Letterkunde
  en Schoone Kunsten. I—V. Amsterdam, 1848—1852.
  Svo.
- Verslag van de Openbare Vergadering der Tweede Klasse van het Koninklijk-Nederlandsche Instituut van Wetenschappen, Letterkunde en Schoone Kunsten. Amsterdam, 1826. 4to.
- Commentationes Latinae Tertiae Classis Instituti Regii Belgici, VI. Amstelod., 1836. 4to.
- Gedenkschriften, in de Hedendaagsche Taalen, van de Derde Classe van het Koninklijk-Nederlandsche Instituut van Wetenschappen, Letterkunde en Schoone Kunsten. V. Amsterdam, 1836. 4to.
- Jaarboek van het Koninklijk-Nederlandsche Instituut van Wetenschappen, Letterkunde en Schoone Kunsten, voor 1850 & 1851. Amsterdam, 1850, 1852. 8vo.

## Koninklijk Zoologisch Genootschap "Natura Artis Magistra."

- Jaarboekje van het Koninklijk Zoologisch Genootschap. Natura Artis Magistra voor het Jaren 1852—1857. Amsterdam. 16mo.
- Bijdragen tot de Dierkunde. Uitgegeven door het Koninklijk Zoologisch Genootschap Natura Artis Magistra. Zesde Aflevering. Amsterdam, 1854. fol.

#### AMSTERDAM.

## Genootschap ter Spreuke Voerende: "Een onvermoeide arbeid komt alles te boven."

Nieuwe Wis- en Natuurkundige Verhandelingen van het Genootschap te Amsterdam ter Spreuke Voerende: Een onvermoeide arbeid komt alles te boven. Verhandeling over eene Merkwaardige Dynamische Eigenschap van eene bijzondere soort van Drichoekige Piramiden, door G. F. W. BAEHR. II, II. Amsterdam, 1851. 8vo.

### Miscellanea.

Uitgezogte Verhandelingen uit de Nieuwste Werken van de Soeieteiten der Wetenschappen in Europa en van andere geleerde Mannen. Met naauwkeurige Afbeeldingen. I —X. Amsterdam, 1756—1765. 8vo.

Tijdschrift voor Natuurlijke Geschiedenis en Physiologie. Uitgegeven door VAN DER HOEVEN, M. D. Prof. te Leiden, en W. H. DE VRIESE, M. D. Prof. te Amsterdam. I—XII. Amsterdam, 1834—1845. 8vo.

#### GRONINGEN.

## Academia Groningana.

Annales Academiae Groninganae. 1815—1837. Groningae, 1817—1839. 22 vols. 4to.

### HAARLEM.

## Bataafsche Maatschappij der Wetenschappen.

Natuurkundige Verhandelingen van de Bataafsche Maatschappij der Wetenschappen te Haarlem. I—V. Amsterdum, 1799—1810. 8vo.

## Hollandsche Maatschappij der Wetenschappen.

Verhandelingen, uitgegeven door de Hollandsche Maatschappij der Wetenschappen te Haarlem. I—XXX. Haarlem en Amsterdam, 1754-93. 8vo.

(Wanting XIV, II.)

Register. I—XII. Haarlem, 1772. Idem. XIII—XXVIII. Haarlem en Amsterdam, 1793. 8vo.

#### HAARLEM.

## Hollandsche Maatschappij der Wetenschappen.— Continued.

Natuurkundige Verhandelingen van de Hollandsche Maatschappij der Wetenschappen te Haarlem. Tweede Verzameling. V, II; VII. Leiden, 1849, 1851. VIII—XI, I; XIII. Haarlem, 1853-54. 1857. 4to.

Historische en Letterkundige Verhandelingen van de Hollandsche Maatschappij der Wetenschappen te Haarlem. I. Haarlem, 1851. 4to.

Extrait du Programme de la Société Hollandaise des Sciences à Harlem pour l'année 1850, pp. 7; 1851, pp. 6; 1854, pp. 6. 4to.

Verhandelingen, uitgegeven door de Commissie belast met het vervaardigen eener Geologische Beschrijving en Kaart van Nederland. I, II. *Haarlem*, 1853, 1854. 4to.

## LA HAYE (THE HAGUE).

## Koninklijk Instituut van Ingenieurs.

Verhandelingen van het Koninklijk Instituut van Ingenieurs. 1852–53, 1853–54, 1854–55. *Gravenhage*, 1853–55. fol.

Uittreksels uit Vreemde Tijdschriften voor de Leden van het Koninklijk Instituut van Ingenieurs. 1852-53, 1853-54, 1854-55, 1, 111. Gravenhage, 1853-55. fol.

Koninklijk Instituut van Ingenieurs. Algemeen Verslag van de Werkzaamheden en Notulen der Vergaderingen. 1852 -53, 1853-54. Gravenhage, 1853, 1854. 8vo.

Notulen der Vergadering van het Koninklijk Instituut van Ingenieurs. 12de September, and 14de November, 1854. 8vo.

## Societe Entomologique des Pays-Bas.

Mémoires d'Entomologie publiés par la Société Entomologique des Pays-Bas, sous la direction de MM. J. Van der Hoeven, M. C. Verloren, et S. C. Snellen Van Vollenhoven. Livr. 1—111. La Haye, 1857. Svo.

#### LA HAYE.

## Societas Hagana pro Vindicanda Religione Christiana.

Het Genootschap tot Verdediging van de Christelijke Godsdienst geschiedkundig geschetst. Feestrede ter viering van het vijftigjarig bestaan des Genootschaps, uitgespraken in's Hage, den 23 October 1855. Met Aanteekeningen en Bijlagen, door HERM. Joh. ROYAARDS. Gravenhage, 1836. 8vo.

#### LEYDEN.

## Academia Lugduno-Batava.

Annales Academiæ Lugduno-Batavæ. 1816—1837. Lugduni Batavorum, 1817—1838. 4to.

Annales Academici, 1837–38, 1838–39, 1839–40. *Hagae Comitis*, 1840–42. 3 vols. 4to. Idem. 1840–49, 1849–50, 1850–51, 1852–53. *Lugduni Batavorum*, 1851–56. 4 vols. 8vo.

## Vereeniging voor de Flora van Nederland.

Nederlandsch Kruidkundig Archief, onder redactie van F. Dozy. Vierde Deel, 1ste Stuk. Leiden, 1856. 8vo.

### MIDDELBURG.

## Zeeuwsch Genootschap der Wetenschappen.

Nieuwe Verhandelingen van het Zeeuwsch Genootschap der Wetenschappen. I—V. Middelburg, 1807—1835. Svo.

Nieuwe Werken van het Zeeuwsch Genootschap der Wetenschappen. I, II. *Middelburg*, 1839, 1845. Svo.

Verhandeling van Mr. A. F. Siffle, over den Oorsprong en de Grenzen van het Wettig Gezag in den Staat. *Middel-burg*, 1852. 8vo.

Archief vrogere en latere Mededeelingen, voornamelijk in betrekking tot Zeeland. I, II. Middelburg, 1856. 8vo.

#### ROTTERDAM.

# Bataafsch Genootschap der Proefondervindelijke Wijsbegeerte te Rotterdam.

Verhandelingen van het Bataafsch Genootschap der Proefondervindelijke Wijsbegeerte te Rotterdam. I—XII. Rotterdam, 1774—1798. 4to.

Nieuwe Verhandelingen van het Bataafsch Genootschap der Proefondervindelijke Wijsbegeerte te Rotterdam. I, 1800; IV, 1806; V—XI, 1810—1851; XII, 1, 1851. Amsterdam. 4to.

(Wanting, Vols. II and III, and continuation from the 2d part of Vol. XII inclusive.)

Programma van het Bataafsch Genootschap der Proefondervindelijke Wijsbegeerte, gesticht door Steven Hoogen-DIJK te Rotterdam. *Rotterdam*, 1850. 4to.

### UTRECHT.

## Academia Rheno-Trajectina.

Annales Academiæ Rheno-Trajectinæ, 1815—1837. Trajecti ad Rhenum, 1817—1837. Svo.

## Historisch Genootschap.

Berigten van het Historisch Genootschap te Utrecht. I— V. Utrecht, 1846—1856. 8vo.

Kronijk van het Historisch Gezelschap te Utrecht. Jaarg. II—V, 1846—1849. Kronijk van het Historisch Genootschap gevestigd te Utrecht. Tweede serie. Jaarg. VI—X, 1850—1854. Derde serie. XI, 1, 1855. *Utrecht*. 8vo.

Register op de Kronijk van het Historisch Genootschap gevestigd te Utrecht. Jaargangen 1846—1854. *Utrecht*, 1857. 8vo.

Codex diplomaticus Neerlandicus. Verzameling van Oorkonde, betrekkelijk de Vaderlandsche Geschiedenis. Uitgegeven door het *Historisch Gezelschap gevestigd te* Utrecht. I. In twee Afdeelingen. Utrecht, 1848. 4to.

Idem. Tweede serie. III, 1, 1855; 11, 1856. Utrecht. 8vo.

#### UTRECHT.

# Koninklijk Nederlandsch Meteorologisch Instituut.

- Meteorologische Waarnemingen in Nederland en Afwijkingen van Temperatuur en Barometerstand op andere Plaatsen in Europa. 1852, 1853, 1854. *Utrecht*, 1852, 1854, 1855. Oblong 4to.
- Meteorologische Waarnemingen in Nederland en zijne Bezittingen, en Afwijkingen van Temperatuur en Barometerstand op vele Plaatsen in Europa. 1855 & 1856. *Utrecht*, 1855, 1857. Oblong 4to.

# Provinciaal Utrechtsch Genootschap van Kunsten en Wetenschappen.

- Verhandelingen van het Provinciaal Utrechtsch Genootschap van Kunsten en Wetenschappen. I—IX. 1781—1801. • Utrecht. 8vo.
- Nieuwe Verhandelingen van het Provinciaal Utrechtsch Genootschap van Kunsten en Wetenschappen. I—XV. 1822—1845. *Utrecht*. 8vo.
- Aanteekeningen van het verhandelde in de Sectie-Vergaderingen van het Provinciaal Utrechtsch Genootschap van Kunsten en Wetenschappen, ter gelegenheid van de algemeene Vergadering gehouden in het Jaren 1845—1855. *Utrecht*, 1846—1854. Svo.
- Verslag van het verhandelde in de Algemeene Vergadering van het Provinciaal Utrechtsch Genootschap van Kunsten en Wetenschappen, voor het jaar 1850. 8vo.
- Verhandeling over de Verdiensten van Gijsbert Karel van Hogendorp als Staatshuishoudkundige ten aanzien van Nederland, door Mr. O. VAN REES. *Utrecht*, 1854. 8vo.
- Uitkomsten der Meteorologische Waarnemingen gedaan te Utrecht in de Jaren 1839-43. Medegedeeld door R. Van Rees. *Utrecht*, 1844. 8vo.
- Uitkomsten der Meteorologische Waarnemingen gedaan te Breda van 1839-46, door en onder de leiding van Dr. W. WENCKEBACH. Medegedeeld door zijnen opvolger, Dr. C. H. D. Buijs Ballot. *Utrecht*, 1848. 8vo.

### UTRECHT.

## Provinciaal Utrechtsch Genootschap, etc.—Cont'd.

Uitkomsten der Meteorologische Waarnemingen gedaan in 1849 en 1850 te Utrecht, en op eenige andere Plaatsen in Nederland. Met ondersteuning van het Provinciaal Utrechtsch Genootschap van Kunsten en Wetenschappen. Utrecht, 1851. 4to.

Windwaarnemingen in Nederland gedurende de jaren 1849 en 1850, bijeenverzameld door Dr. F. W. C. KRECKE. Behoorende bij de Uitkomsten der Meteorologische Waarnemingen gedaan in 1849 en 1850 te Utrecht en op eenige andere Plaatsen in Nederland. Uitgegeven, met ondersteuning van het Provinciaal Utrechtsch Genootschap van Kunsten en Wetenschappen, door Dr. C. H. D. Buys Ballot. Utrecht. Oblong.

#### ZWOLLE.

# Overijsselsche Vereeniging tot Ontwikkeling van Provinciale Welvaart.

Handelingen der Overijselsche Vereeniging tot Ontwikkeling van Provinciale Welvaart. Zwolle, 1841. 8vo.

Algemeen Verslag uitgebragt door de directie der Overijsselsche Vereeniging tot Ontwikkeling van Provinciale Welvaart, op de Algemeene Vergadering, 1845, 1847. Zwolle, 1845, 1848. 8vo.

Algemeen Jaarlijksch Verslag van de directie der Overijsselsche Vereeniging, &c. 1847; 1850; Jan. 6 and Nov. 24, 1854; 1856. Zwolle, 1847-56. 8vo.

Mededeeling over het Statistiek Bureau der Overijsselsche Vereeniging, &c. Zwolle, 1848. 8vo.

Bijdrage over de Hulpbronnen voor Nationale Welvaart in den Molukschen Archipel. Uitgesproken in de Overijsselsche Vereeniging ter Bevordering van Provinciale Welvaart, 17 Mars 1848. Gevolgd door eene Bijdrage tot de Statistieke Kennis van de Z. W. en Z. O. Eilanden, door den Heer G. De Seriere. Zwolle, 1848. 8vo.

Landhuishoudelijke Luchtkasteelen in Nederland. Voorlezing in de Overijsselsche Vereeniging tot Ontwikkeling

#### ZWOLLE.

## Overijsselsche Vereeniging, etc.—Continued.

van Provinciale Welvaart, door Dr. W. C. H. Staring. Zwolle, 1849. 8vo.

- Onze Banken van Leening. Verhandeling uitgesproken in de Overijsselsche Vereeniging, etc., op den 8 December 1848, door Mr. J. Kalff. Zwolle, 1849. 8vo.
- Bronnen van Volkswelvaart. Voorlezing, gehouden in de Vergadering der Overijsselche Vereeniging tot Ontwikkeling van Provinciale Welvaart op den 14 December 1849, door J. Zeehuisen, lid der Staten van Overijssel. Met het Portret van den Heer Mr. Willem Jan Baron van Dedem tot de Rollecate. Zwolle. 1850. 8vo.
- Lijst der Voorwerpen in het Museum van Oudheden en Zeldzaamheden der Overijsselsche Vereeniging tot Ontwikkeling van Provinciale Welvaart te Zwolle. Zwolle, 1852. 8vo.
- Tijdschrift voor Staathuishoudkunde en Statistiek, door Mr. B. W. A. E. Sloet tot Oldhuis. I—XI. Zwolle, 1841 –55. 8vo.

### GERMANY.

## Norddeutscher Apotheker-Verein.

Vereins-Zeitung, redigirt vom Directorio des Vereins.

(From Arch. d. Pharm. CX Bds 1 Hft. pp. 81—112. 8vo.

- " " CXXVI " 2 " 209—224.
  " " CXXVII " 1 " 73—120.
- " " CXXXI " 1 " 73—104.
- " " CXXXVIII " 1 " 81—112.
- " " CXLII " 1 " 81—128.
- " " CXLIII " 1 " 81—112.)
- Biographisches Denkmal für Heinr. Wilh. Ferd. Wackenroder. (From Arch. d. Pharm. Bd. CXXXV. Heft 1, pp. 13.) 8vo.
- Literatur and Kritik. (From Arch. d. Pharm., pp. 207—216 & 328—336.) 8vo.

## Verein der Suddeutschen Forstwirthe.

- Die XII. Versammlung Süddeutscher Forstwirthe an Pfingsten 1855 in Stuttgart. Stuttgart. 8vo. pp. 51. [Program.]
- Idem. (Abgedruckt aus den neuen Jahrbüchern der Forstkunde.) Frankfurt am Main, 1855. 8vo. pp. 144 & 136.
- Idem. Schluss der Berichte über die Excursionen. (Aus den neuen Jahrbüchern der Forstkunde.) 8vo. pp. 86.
- Idem. Nach ihrem Schlusse geschildert von Forstrath Dr. v. Gwinner. Stuttgart, 1855. 8vo. pp. 35.
- Notizen für die 12. Versammlung süddeutscher Forstwirthe, zur Excursion in das Revier Engelberg, am Pfingstmontag den 28 Mai 1855. Von Revierförster Zaiser zu Hohengehren. Reutlingen. 8vo. pp. 16.

## Versammlung deutscher Land- und Forstwirthe.

- Amtlicher Bericht über die XI. Versammlung deutscher Land- und Forstwirthe zu Kiel, im September 1847. Redigirt von W. Hirschfeld und H. Carstens. *Altona*, 1848. 8vo.
- Idem. XVI. Versammlung in Nürnberg 1853. München, 1854.
- Idem. XVIII. Versammlung in Prag 1856. Prag, 1857. Tageblatt für die XIX. Versammlung deutscher Land- und Forstwirthe in Coburg. 1—v, 1857. Coburg. 8vo.
- Tägliches Verzeichness der eingeschriebenen Mitglieder der XIX. Versammlung deutscher Land- und Forstwirthe in Coburg. I—IX, 1857. Coburg. 8vo.
- Statistische Mittheilungen über das Herzogthum Sachsen-Coburg, mit besonderer Rücksicht auf Land- und Forst-Wirthschaft. Für die XIX. Versammlung deutscher Land- und Forstwirthe zusammengestellt im Sommer 1857, von HERMAN ROSE. Coburg. 8vo.
- Hippologischer Vortrag zur Beantwortung der nach dem Programm der XIX. Versammlung deutscher Land- und Forstwirthe gestellten Frage II. der Plenarsitzung. Coburg, den 31 August 1857. Coburg. 8vo. pp. 20.

## Versammlung deutscher Naturforscher und Aerzte.

Amtlicher Bericht über die [siebente] Versammlung deutscher Naturforscher und Aerzte zu Berlin in September, 1828. Berlin, 1829. 4to.

Ste, in Heidelberg, 1829. Heidelberg, 1829.

9te, in Hamburg, 1830. Hamburg, 1831.

10te, in Wien, 1832. Wien, 1832.

11te, zu Breslau, 1833. Breslau, 1834.

12te, zu Stuttgart, 1834. Stuttgart, 1835.

14te, zu Jena, 1836. Weimar, 1837.

15te, in Prag, 1837. Prag, 1838.

16te, in Freiburg, 1838. Freiburg, 1839. 8vo.

18te, zu Erlangen, 1840. Erlangen, 1841.

19te, zu Braunschweig, 1841. Braunschweig, 1842.

20te, zu Mainz, 1842. Mainz, 1843.

21te, in Gratz, 1843. Gratz, 1844.

22te, in Bremen, 1844. Bremen, 1845.

24te, in Kiel, 1846. Kiel, 1847.

29te, in Wiesbaden, 1852. Wiesbaden, 1853.

(Purchased.)

- Die Versammlung der deutschen Naturforscher und Aerzte in Berlin i. J. 1828, kritisch beleuchtet. Leipzig, 1828. 16mo.
- Die achtzehnte Versammlung deutscher Naturforscher und Aerzte, von Carl Rösch. Stuttgart, 1841. 8vo.
- Die 24. Versammlung deutscher Naturforscher und Aerzte. Ein Beitrag zur Characteristik naturwissenschaftlicher Zustände der Gegenwart, von C. Tr. Sachse. *Dresden*, 1846. 8vo. pp. 44.
- Die XXVI. Versammlung deutscher Naturforscher und Aerzte im Allgemein geschildert von Prof. Dr. Fürnrohr. Svo.
- Die Verhandlungen der Section für Psychiatre und Anthropologie während der 29sten Versammlung deutscher Naturforscher und Aerzte zu Wiesbaden 1852, redigirt von Dr. A. Erlenmeyer. 8vo.
- Tageblatt der 32. Versammlung Deutscher Naturforscher und Aerzte in Wien im Jahre 1856. No. I—VIII. 4to.

## ALTENBURG (SAXONY).

## Naturforschende Gesellschaft des Osterlandes.

Statuten der Naturforschenden Gesellschaft des Osterlandes zu Altenburg. Altenburg, 1846. 8vo.

Tafellieder zum Stiftungsfeste der Naturforschenden Gesellschaft des Osterlandes. *Altenburg*. 8vo.

Festlied gesungen am Stiftungsfeste der Naturforschenden Gesellschaft des Osterlandes den 7 Juli 1852. 8vo.

## Pomologische Gesellschaft.

Mittheilungen aus dem Osterlande. Gemeinschaftlich herausgegeben von dem Kunst- und Handwerks-Vereine der Naturforschenden und der Pomologischen Gesellschaft zu Altenburg. I—XIII, I. I. Altenburg, 1837—1856. 8vo.

Mittheilungen der Pomologischen Gesellschaft zu Altenburg über die Feier ihres 50jährigen Bestehens und Wirkens. Altenburg, 1854. 8vo.

### Miscellanea.

Universal-Lexicon der Gegenwart und Vergangenheit, oder neuestes encyclopädisches Wörterbuch der Wissenschaften, Künste und Gewerbe, bearbeitet von mehr als 300 Gelehrten. Herausgegeben von H. A. PIERER. Dritte Auflage. (Vierte Ausgabe.) I—XVII. Altenburg, 1849–52. 8vo.

Supplemente zu Pierer's Universal-Lexicon. I—III. Altenburg, 1851–53. Svo.

Atlas der Abbildungen. Gratiszugabe zur zweiten Auflage von Pierer's Universal-Lexikon. (Auf 68 Tafeln an 4000 Gegenstände.) Fünftes Heft, Zweite Abtheilung, Acht Tafeln. Altenburg. Oblong fol.

### BENDORF.

# Deutsche Gesellschaft für Psychiatrie und gerichtliche Psychologie.

Correspondenz-Blatt der deutschen Gesellschaft für Psychiatrie und gerichtliche Psychologie, herausgegeben von deren Vorstand. Redigirt van Dr. A. A. ERLENMEYER. Dritter Jahrgang, 1856. Neuwied. 4to.

## Deutsche Geologische Gesellschaft.

Zeitschrift der Dentschen geologischen Gesellschaft. I— IV; V, I, II, III; VIII, IV; IX, I, II. Berlin, 1849— 1857. 8vo.

### Gesellschaft fur Erdkunde.

Statuten der, am 20ten April 1828, in Berlin gestifteten Gesellschaft für Erdkunde. Berlin. 4to.

Monatsberichte über die Verhandlungen der Gesellschaft für Erdkunde zu Berlin. Redigirt von J. Lепмаnn und Wilh. Манімаnn. Jahrg. I—IV, 1839–43. Berlin. 8vo.

Idem. Nene Folge. I—X, 1844—1853.

Zeitschrift für allgemeine Erdkunde. Mit Unterstützung der Gesellschaft für Erdkunde zu Berlin, und unter besonderer Mitwirkung von H. W. Dove, C. G. Ehrenberg, H. Kiepert, und C. Ritter in Berlin; K. Andree, in Bremen; A. Petermann, in London; und J. C. Wappaus, in Göttingen; herausgegeben von Dr. J. E. Gumprecht. I—VI. Berlin, 1853—1856.

Idem. Neue Folge. I-III, 1856-57. 8vo.

Erste jährliche Uebersicht der Thätigkeit der Gesellschaft für Erdkunde in Berlin nach dem ersten Lustrum des Vereines für das Jahr 1833 (4 Mai) bis 1834, von dem zeitigen Director C. Ritter vorgetragen am 3 Mai. 4to.

Zweite, in Berlin, 1834-35.

Dritte, " " 1835–36. Vierte, " " 1836–37.

Fünfte, " " 1837-38.

## Geographische Gesellschaft.

[Letter from the Society to Alexander von Humboldt.] Berlin, 14 September, 1849. Berlin. 4to. pp. 4.

[Reply of Alexander von Humboldt to the Society.] Potsdam, 20 October, 1849. Berlin. 4to. pp. 4.

Zur Erinnerung an die Feier des fünf und zwanzigjährigen Stiftungsfestes der Geographischen Gesellschaft in Berlin am 24 April 1853. Berlin, 1853. 8vo.

## Gesellschaft naturforschender Freunde.

Schriften der Berlinischen Gesellschaft naturforschender Freunde. I—IX. Berlin, 1780–89. 8vo.

Der Gesellschaft naturforschender Frennde zu Berlin Neue Schriften. I—IV. Berlin, 1795—1803. 4to.

Der Gesellschaft naturforschender Freunde zu Berlin Magazin für die neuesten Entdeckungen in der gesammten Naturkunde. I—VIII, 1807—1818. Berlin. 4to. (Purchased.)

# Gesellschaft zur Befærderung des Flachs- und Hanfbaues in Preussen.

Mittheilungen der Gesellschaft zur Beförderung des Flachsund Haufbaues in Preussen. I—VII. Berlin, 1851— 1857. Svo.

(From the Polytechnische Gesellschaft in Berlin.)

## Kænigliches Landes-Œconomie-Collegium.

Annalen der Landwirthschaft in den Königlich Preussischen Staaten. Herausgegeben vom Präsidium des Königl. Landes-Œconomie-Collegiums, und redigirt von dem General-Secretair desselben, Dr. Alexander von Lengerke. Jahrg. X, 1852; XI & Suppl. 1853; XII, 1854; XIII, 1855; XIV, I, 1856; XV, I, V, VI, 1857. (Bde. XIX—XXVII, XXXVIII, 1, XXIX, 1, 5, 6.) Berlin. Svo.

Denkschriften zu den Berathungsgegenständen:

- I. Die Verwendung des etatsm\u00e4ssigen Landeskultur-Fonds. Berlin, 1850. 8vo.
- II. Die Gründung landwirthschaftlicher Meliorations-Fonds. Berlin, 1850. 8vo.
- III. Entwurf eines Planes zur Herstellung einer landwirthschaftlichen Statistik sämmtlicher Vereins-Bezirke. Berlin, 1850. 8vo.
- IV. Der landwirthschaftliche Unterricht in den Volkschulen. Berlin, 1850. 8vo.
- V. Landwirthschaftliches Versnehswesen. Einrichtung eines Versnehsfeldes. Berlin, 1850. 8vo.

## Kenigl. Landes-Economie-Collegium.—Continued.

- VI. Das landwirthschaftliche Prämienwesen. Berlin, 1850. 8vo.
- VII. Das ländliche Gesinde-Wesen. Berlin, 1850. 8vo.
- IX. Die Ueben- und Füll-Arbeiten der kleineren Landbewohner. Berlin, 1850. 8vo.
- X. Die Vermehrung der Lohnarbeit auf dem Lande. Berlin, 1850. 8vo.
- XI. Die Benutzung der Kreisblätter für Belehrung des Landvolks. Berlin, 1850.
- XIII. Die Runkelrübenzucker-Fabrikation als landwirthschaftliches Nebengewerbe. Berlin, 1850. 8vo.
- XIV. Die Samen-Varietäten und der Wechsel des Saatgetreides. Berlin, 1850. Svo.
- XV. Ueber die Veranstaltung allgemeiner Ausstellungen der Erzeugnisse des Land- und Gartenbaues. Berlin, 1850. 8vo.
- Denkschriften zu den Berathungsgegenständen XVI bis LI, für die landwirthschaftliche Versammlung in Mai 1850. Berlin, 1850. 8vo.

# Kæniglich Preussische Akademie der Wissenschaften zu Berlin.

- Abhandlungen der Königlichen Akademie der Wissenschaften zu Berlin. Aus den Jahren 1822—1856. Berlin, 1825—1857. 4to.
- Bericht über die zur Bekanntmachung geeigneten Verhandlungen der Königl. Preuss. Akademie der Wissenschaften zu Berlin. Aus den Jahren 1848—1856, 1857, 1—VIII. Berlin. 8vo.
- Astronomisches Jahrbuch für das Jahr 1803. Nebst einer Sammlung der neuesten in die astronomischen Wissenschaften einschlagenden Abhandlungen, Beobachtungen und Nachrichten. Mit Genehmhaltung der Königl. Akademie der Wissenschaften berechnet und herausgegeben von J. E. Bode. Berlin, 1800. 8vo.

## Kæniglich Preussische Akademie der Wissenschaften zu Berlin.—Continued.

Idem	für das	Jahr 1819.	Berlin,	1816.
"	"	1820.	"	1817.
"	"	1821.	"	1818.
"	"	1822.	"	1819.
"	"	1823.	"	1820.
"	"	1824.	"	1821.
"	"	1825.	"	1822.
"	"	1826.	"	1823.
"	"	1827.	"	1824.
"	"	1828.	"	1825.
"	"	1829.	"	1826.
"	"	1855.	"	1852.
"	"	1856.	"	1853.
44	"	1860.	"	1857.

## Physikalische Gesellschaft.

Die Fortschritte der Physik. Dargestellt von der *Physikalischen Gesellschaft zu Berlin*. Jahrg. I, III—X. Berlin, 1847, 1850–57. 8vo.

(Jahrg. II, wanting.)

## Polytechnische Gesellschaft.

Bericht über die Verhältnisse und die Wirksamkeit der Polytechnischen Gesellschaft zu Berlin. Hefte I—VII, Jahre I—XII (1839—1851). Als Manuscript gedruckt zur Kenntnissnahme für sämmtliche einheimische und auswärtige Mitglieder der Gesellschaft. Berlin, 1845—1851.

Sach- und Namenregister zu den ersten sieben Jahrgängen der Berichte über die Verhältnisse und die Wirksamkeit der Polytechnischen Gesellschaft zu Berlin. Als Manuscript gedruckt zur Kenntnissnahme für sämmtliche einheimische und auswärtige Mitglieder der Gesellschaft. Berlin, 1848. 4to.

Verhandlungen der Polytechnischen Gesellschaft. Jahrg. XIII—XVI (1851—1855). 4to. Jahrg. XVII, XVIII (1855—1857). 8vo. Als Manuscript für die Mitglieder der Gesellschaft gedruckt. Berlin, 1852—1857.

## Polytechnische Gesellschaft.—Continued.

Alphabetisches Sachregister der wichstigsten technischen Journale für den Zeitraum von 1 Januar 1847 bis 30 Juni 1853; 1 Jan. 1855 bis 31 Dec. 1856. Bearbeitet von Dr. Philipp. Für die Mitglieder der Polytechnischen Gesellschaft. Berlin, 1847—1853, 1855–57. 16mo.

Verzeichniss der Mitglieder der Polytechnischen Gesellschaft in Berlin. Berlin, 1853. 16mo. 1855. 8vo.

Verzeichniss der Bücher und Zeitschriften in der Bibliothek der Polytechnischen Gesellschaft in Berlin. Geschlossen im April 1853. Berlin, 1853. Svo.

Statuten der Polytechnischen Gesellschaft zu Berlin. Berlin, 1853. 8vo. pp. 16.

Vorträge gehalten in der Polytechnischen Gesellschaft zu Berlin im Winter 1854—1855. Stenographirt von Dr. G. Michaelis. Berlin, 1855. 8vo.

## Stenographischer Verein.

Anleitung zur deutscher Stenographie oder Kurzschrift, herausgegeben von dem Stenographischen Verein zu Berlin. Siebente, verbesserte Auflage. Berlin, 1853. 16mo. (From the Polytechnische Gesellschaft in Berlin.)

## Verein fur Deutsche Statistik.

Zeitschrift des Vereins für Deutsche Statistik. Unter Beyrath mehrerer Mitarbeiter herausgegeben von Dr. Freiherrn Von Reden in Berlin. Jahrg. I, II, 1847, 1848. Berlin. 4to.

(Wanting I, IV—VII.)

# Verein zur Befærderung des Gartenbaues in den kæniglich preussischen Staaten.

Verhandlungen des Vereins zur Beförderung des Gartenbaues in den königlich preussischen Staaten. Bde II—XXI, 1826-53. Berlin. 4to.

Idem. Neue Reihe. Jahrg. I, 1853; III, Juli—Dec. 1855; IV, 1856-57. Berlin. 8vo.

Sach- und Namen-Register zu den Verhandlungen des

## Verein zur Befærderung, etc.—Continued.

Vereins zur Beförderung des Gartenbaues in den königlich preussischen Staaten. Erster Band, zu der ersten bis einschliesslich ein und zwanzigsten Lieferung der Verhandlungen. Berlin, 1836. 4to.

Verzeichniss von den Büchern, Zeitschriften und Broschüren der Bibliothek des Vereines zur Beförderung des Gartenbaues in den königlich preussischen Staaten zu Berlin, nach dem Inhalte geordnet und mit einem Register der Verfasser versehen von dem. General-Sekretaire. Vierte Auflage. Berlin, 1852. 4to. pp. 46.

## Verein zur Befærderung des Gewerbfleisses in Preussen.

Verhandlungen des Vereins zur Beförderung des Gewerbfleisses in Preussen. Vier und dreissigster Jahrgang. Dazu ein Sach- und Namen-Register für die Jahrgänge 1851-55. Berlin, 1855. 4to.

#### Miscellanea.

Archiv für Naturgeschichte. Gegründet von A. F. A. Wiegmann. Fortgestzt von W. F. Erichson, in Verbinding mit Prof. Dr. Grisebach in Göttingen, Prof. Dr. Leuckart in Giessen, &c. Jahrg. I—XXII, XXIII, I—III, 1835—1857. Berlin. 8vo.

Archiv für Mineralogie, Geognosie, Bergbau und Hüttenkunde. Herausgegeben von Dr. C. J. B. KARSTEN, I— X, 1829—1837; und Dr. H. V. DECHEN, XI—XXVI, 1838—1855. Berlin. 8vo.

Archiv für Anatomie, Physiologie, und wissenschaftliche Medicin. In Verbindung mit mehreren Gelehrten herausgegeben von Dr. Johannes Muller. Jahrg. 1835— 1857, I, II, III. Berlin. 8vo.

(Purchased.) (Wanting, 1852, Hefts IV—VI.)

Archiv für pathologische Anatomie und Physiologie und für klinische Medicin. Herausgegeben von R. Virchow. IX, X, 1856. Neue Folge, I, II, 1857. Berlin. 8vo.

## Miscellanea.—Continued.

- Archiv für wissenschaftliche Kunde von Russland. Herausgegeben von A. Erman. I—XVI, I, II. Berlin, 1848–57. 8vo.
- Eldenaer Archiv für landwirthschaftliche Erfahrungen und Versuche. Herausgegeben von D. Rhode, C. Trommer und F. Jüllke in Eldena. Jahrg. 1854, 1; 1855, 1—111. Berlin, 1854, '55. Svo.
- Physikalische Belustigungen. I—III. Berlin, 1751–53. 8vo. Landwirthschaftliche Zeitung für Nord- und Mitteldeutschland. Herausgegeben von Dr. C. Schneitler. Mit Holzschnitten. 1855; Jan.—Apr., 1856, 1857. Berlin. 4to.
- Magazin für die Literatur des Auslandes. Erster Band. Februar bis Juni 1832, and 3 Januar bis 30 Marz 1854. Berlin. fol.
- Repertorium der Physik. Enthaltend eine vollständige Zusammenstellung der neuern Fortschritte dieser Wissenschaft. Unter Mitwirkung der Herren Lejeune-Dirichlet, Jacobi, Neumann, Riess, Strehlke, herausgegeben von Heinrich Wilhelm Dove und Ludwig Moser. I—VIII. Berlin, 1837-49. 8vo.

#### BLANKENBERG.

## Naturwissenschaftlicher Verein des Harzes.

Bericht des Naturwissenschaftlichen Vereins des Harzes für die Jahre 1840-41. 4to.

Idem für die Jahre 1842-3 und 1843-4.

"	"	1844-5.
"	"	1845-6.
"	"	1846-7.
"	"	1847-8.
"	"	1848 und 1849.
"	"	1851.
"	"	1852.
"	"	1853 und 1854.

### BONN.

# Naturhistorischer Verein der preussischen Rheinlande und Westphalens.

Verhandlungen des Naturhistorischen Vereins der preussischen Rheinlande und Westphalens. Jahrg. I—XIII, 1844—1856. Bonn. 8vo.

(Jahrg. VI, wanting.)

Correspondenzblatt des Naturhistorischen Vereins der preussischen Rheinlande und Westphalens. 1851, I—V; 1852, I—IV; 1853, I—III; 1854, I—III. Bonn. 8vo.

## Konigl. Rheinische Friedrich-Wilhelms Universitæt.

Astronomische Beobachtungen auf der Sternwarte der Königlichen Rheinischen Friedrich-Wilhelms Universität zu Bonn, angestellt und herausgegeben von Dr. FRIEDRICH WILHELM AUGUST ARGELANDER. Zweiter Band. Zonenbeobachtungen am Südhimmel. Bonn, 1852. 4to. (From the Author.)

## Verein von Alterthumsfreunden im Rheinlande.

Jahrbücher des Vereins von Alterthumsfreunden im Rheinlande. I, II. Bonn, 1842 & 1843. 8vo.

Idem XIII. Bonn, 1848.

" XVII. " 1851.

" XVIII. " 1852.

" XIX. " 1853.

" XX. " 1853.

" XXII. " 1855.

" XXV. " 1857.

Das Coelner Mosaik. Programm zu Winckelmanns Geburtstage, am 9 December 1845. Bonn, 1846. 8vo.

Apollon, der Heilspender: übersilberte Erzstatuette des Museums der Gesellschaft für nützliche Forschungen zu Trier. Fest-Programm zu Winckelmann's Geburtstage, am 9 December 1847, von Dr. LAURENZ LERSCH. Bonn, 1848. 4to.

Die Kapitole. Einladungs-Programm zu der am Geburtstage Winckelmann's stattfindenden Generalversammlung

### BONN.

## Verein von Alterthumsfreunden im Rheinlande.—

des Vereins von Alterthumsfreunden im Rheinlande; herausgegeben vom Vorstande des Vereins. Bonn, 1849. 4to.

Die römische Villa bei Weingarten. Einladungs-Programm zu der am Geburtstage Winckelmann's, den 9 December 1851, stattfindenden Generalversammlung des Vereins von Alterthumsfreunden im Rheinlande. *Bonn*, 1851. 4to.

Das Judenbad zu Andernach. Einladungs-Programm zu der am Geburtstage Winckelmann's, den 9 December 1853, stattfindenden Generalversammlung des Vereines, etc. *Bonn*, 1853. 4to.

Zur Geschichte der Thebaischen Legion. Fest-Programmzu Winckelmann's Geburtstage am 9 December 1855.Bonn, 1855. 4to.

Die Trojaner am Rheine. Fest-Programm zu Winckelmann's Geburtstage am 9 December 1856. Bonn, 1856.
4to.

#### BRAUNSCHWEIG.

#### Miscellanea.

Magazin für Insektenkunde. Herausgegeben von Karl Illiger. Sechster Band. Braunschweig, 1807. 8vo.

Encyclopädie der gesammten theoretischen Naturwissenschaften in ihrer Anwendung auf die Landwirthschaft; umfassend Physik, unorganische Chemie, organische Chemie, Meteorologie, Mineralogie, Geognosie, Bodenkunde, Dungelehre, Pflanzenphysiologie, Thierphysiologie und Theorie des rationellen Ackerbanes. Von Dr. M. J. Schleiden und Dr. E. E. Schmid. In drei Bänden. I—III. Braunschweig, 1850. 8vo.

### BRESLAU.

# Kaiserliche Leopoldinisch-Carolinische Akademie der Naturforscher.

Miseellanea Curiosa Medico-physica Academiæ Naturæ Curiosorum, sive Ephemeridum Medico-physicarum Ger-

#### BRESLAU.

# Kaiserliche Leopoldinisch-Carolinische Akademie der Naturforscher.—Continued.

manicarum Curiosarum annus primus, anni scilicet MDCLXXmi.; continens celeberrimorum medicorum in et extra Germaniam Observationes Medicas et Physicas, vel Anatomicas, vel Botanicas, vel Pathologicas, vel Chirurgicas, vel Therapeuticas, vel Chymicas. Prefixa Epistola invitatoria ad celeberrimos medicos Enropæ. Idem, Ann. II—X.—Decuriæ III, Ann. I—X.—Decuriæ III,

(From the Royal Library, at the Hague.)

Academiæ Cæsareo-Leopoldinæ Naturæ Curiosorum Ephemerides, sive Observationum Medico-physicarum a celeberrimis viris tum Medicis tum aliis Eruditis in Germania et extra eam communicatarum Centuriæ I—X. Cum appendice et privilegio Sacr. Cæs. Majestatis. Francofurti et Lipsiæ, Noribergæ, Augustæ Vindelicorum, 1712—1722. 4to.

(From the Royal Library, at the Hague.)

Nova Acta (s. Novorum Actorum) Physico-medica Academiæ Cæsareæ Leopoldino-Carolinæ Naturæ Curiosorum.
IX, 1818; X, I, 1820; XI, 1823; XII, 1824-5; XIII, 1826-7; XIV, 1828-9; Suppl. 1829; XV, 1831; XVI, 1832-3; XVII, 1835-6; Suppl. 1836; XVIII, 1836-8; Suppl. I, II, 1841; XIX, 1839-42; Suppl. I, II, 1843; XX, 1843-4; XXI, 1845; Suppl. 1846; XXII, 1847-50; Suppl. 1852; XXIII, 1851-2; Suppl. 1856; XXIV, I, 1854; Suppl. 1854; XXV, 1855-6. Bonnæ et Vratislaviæ. 4to.

Vorwort zum vierundzwanzigsten Bande der Verhandlungen der Kais. Leopoldinisch-Carolinischen Akademie der Naturforscher. Zur Geschichte der Sücularfeier der K. L. C. Akad., etc., am 21 September 1852. Breslau, 1853. 4to.

Nova Acta Academiæ Caes. Leopold.-Carolinæ Naturæ Curiosorum. Vorwort zur zweiten Abtheilung des XXIV Bandes, 1854. Breslau. 4to.

Bonplandia. Zeitschrift für gesammte Botanik. Officielles

### BRESLAU.

# Kaiserliche Leopoldinisch-Carolinische Akademie der Naturforscher.—Continued.

Organ der K. Leopold-Carol. Akademie der Naturforscher. Jahr I, VII; II, IV, V; III, I—XVIII; IV, IV, 1853–56. *Hannover*. royal 8vo.

Fest-Rede bei der Jubelfeier der Kaiserl. Leopoldinischen Carolinischen Akademie der Naturforscher. Gehalten den 21 September 1852 in der zweiten öffentlichen Sitzung der Versammlung der Naturforscher und Aerzte Deutschlands zu Wiesbaden vom dem Adjuncten der Akademie Dr. George von Jäger. Breslau, 1853. 4to. pp. 46.

Preisfrage der k. k. Leopoldin-Carolinischen Academie der Naturforscher. Ausgesetzt von dem Fürsten Anatol Demidoff, Mitglied der Academie (Beinamen Franklin), zur Feier des allerhöchsten Geburtsfestes ihrer Majestät der Kaiserin Alexandra von Russland am 17 Juni n. St. 1854. Breslau. 4to.

Idem 17 Juni n. St. 1855; and 13 Juli 1856.

Concours de l'Académie Impériale Leopoldo-Caroline des Naturalistes de Breslau, proposé par le Prince Anatole de Demidoff membre de l'Académie, sous le surnom de Franklin, à l'occasion de la Fête auguste de sa Majesté l'Impératrice Alexandra de Russie le 17 Juin (n. St.) 1854. Breslau, 1853. 4to.

Idem 13 Juillet (n. s.) 1856 and 13 Juillet (n. s.) 1858.Florence, 1855, 1857. 4to.

#### Sternwarte.

Uranns, oder tägliche für Jedermann fassliche Uebersicht aller Himmelserscheinungen im Jahre 1846. *Glogau*, 1845. 8vo.

Idem, 1847. Glogau, 1846. 8vo. Idem, 1848. "1847. "

Resultate der von der Section für die Sudetenkunde im Jahre 1843, veranlasste meteorologischen Beobachtungen zu hypsometrischen und klimatologischen Zwecken.

Idem, 1845.

#### BRESLAU.

## Sternwarte.—Continued.

Bericht über die Verhandlungen der Meteorologischen Section im Jahre 1852. Galle. 4to.

On the Use of a new Micrometer, &c. Boguslawski. 4to.

## Schlesische Gesellschaft fur vaterlændische Kultur.

Uebersicht der Arbeiten und Veränderungen der Sehlesischen Gesellschaft für vaterländische Kultur. Jahre 1824—1849. Zur Kenntnissnahme für sämmtliche einheimische und auswärtige wirkliche Herrn Mitglieder der genannten Gesellschaft. *Breslau*, 1825—1850. 4to.

Achtundzwanzigster—Vierunddreissigster Jahresbericht der Schlesischen Gesellschaft für vaterländische Kultur. Enthält: Arbeiten und Veränderungen der Gesellschaft in den Jahren 1850—1856. Breslau. 4to.

Denksehrift zur Feier ihres 50-jährigen Bestehens, herausgegeben von der Schlesischen Gesellschaft für vaterländische Kultur. Breslau, 1853. 4to.

Anszug aus der Uebersicht der Arbeiten und Veränderungen der Schlesischen Gesellschaft für vaterländische Kultur in den Jahren 1840—1848. Breslau. [11 pamphlets.] (From the Observatory, Breslau.)

Bericht über die Thätigkeit der allgemeinen naturwissenschaftlichen Section der Schlesischen Gesellschaft für vaterländische Cultur im Jahre 1851, von H. R. GOPPERT. Breslau. 4to.

### BUDA.

# A' Magyar Tudos Tarsasag (The Hungarian Scientific Association).

A' Magyar Tudós Társaság Evkönyvei (Year-books of the Hungarian Scientific Association). Kötet I—VII. Pesten & Budán, 1833-46. 4to.

Régi Magyar Nyelvemlékek (Monuments of the old Hungarian Language). Kiadta a' Magyar Tudós Társaság. Döbrentei Gabor. Kötet I—III. Budán, 1838–42. 4to.

#### CASSEL.

## Miscellanea.

Journal für Ornithologie. Ein Centralorgan für die gesammte Ornithologie. Herausgegeben von Dr. Jean Jahrg. I—V, 1853–57. Cassel. Cabanis.

(Purchased.)

Malakozoologische Blätter. Als Fortsetzung der Zeitschrift für Malakozoologie herausgegeben von Dr. KARL THEODOR MENKE und Dr. Louis Pfeiffer. Bde I-III. Cassel. 1854-1856. 8vo.

(Wanting Title-page and Table of Contents to Vol. III.)

## CRACAU (CRACOW).

### Sternwarte.

Allgemeine Ubersicht der an der K. K. Krakauer Sternwarte vom Jahre 1826 bis 1852 gemachten meteorologischen Beobachtungen, zusammengestellt von Dr. MAX Weisse, Krakau, 1853. Fol.

Resultate der an der Cracauer Sternwarte gemachten meteorologischen und astronomischen Beobachtungen. Cracau, 1839. 4to.

## DANZIG.

### Naturforschende Gesellschaft.

Neueste Schriften der Naturforschenden Gesellschaft in Danzig. I, 1820—1825; II, II, 1827; III, IV, 1831; III, II, 1839; IV, 1842; IV, 1843—1851; V, 1853— 1856. Danzig and Halle. 4to.

(II, 1; III, 1, III, wanting.)

Versuche und Abhandlungen der Naturforschenden Gesellschaft in Danzig. I, II. Danzig, 1747, 1754. 4to.

### DARMSTADT.

## Mittelrheinischer Geologischer Verein.

Die Entstehung und seitherige Wirksamkeit des Mittelrheinischen geologischen Vereins.

Statuten des Mittelrheinischen geologischen Vereins. 8vo. pp. 4.

### DARMSTADT.

## Mittelrheinischer Geologischer Verein.—Continued.

Reports of Meetings of April 18 and Sept. 5, 1852; April 3, 1853; April 30, 1854; April 15 and Sept. 23, 1855; April 6, 1856. 8vo.

Geologische Specialkarte des Grossherzogthums Hessen und der angrenzenden Landesgebiete im Maasstabe von 1:50000. Herausgegeben vom Mittelrheinischen Geologischen Verein. Section Friedberg der Karte des Grossh. Hess. General-Quartiermeister-Stabs, geologisch bearbeitet von R. Ludwig. Darmstadt, 1855. 8vo. with fol. map.

Idem. Section Giessen, von Ernst Dieffenbach. Darmstadt. 8vo. with fol. map.

Idem. Section Büdingen, von R. Ludwig. Darmstadt, 1857. 8vo. with fol. map.

## Naturhistorischer Verein für das Grossherzogthum Hessen.

Verhandlungen des Naturhistorischen Vereins für das Grossherzogthum Hessen und Umgebung. Erstes Heft. Darmstadt, 1847. Svo.

## Verein fur Erdkunde und verwandte Wissenschaften.

Beiträge zur Landes-, Volks- und Staatskunde des Grossherzogthums Hessen. Herausgegeben vom Vereine für Erdkunde und verwandte Wissenschaften zu Darmstadt. Hefte I, II. Darmstadt, 1850, 1853. 8vo.

Notizblatt des Vereins für Erdkunde und verwandte Wissenschaften zu Darmstadt. Nos. I—XLVI. October 1854
—Mai 1857. Darmstadt. 8vo.

Statuten des mit allerhöchster landesherrlicher Genehmigung bestehenden Vereins für Erdkunde und verwandte Wissenschaften zu Darmstadt. Zweiter Abdruck. Darmstadt, 1852. 8vo.

Catalog der Bibliothek des Vereins für Erdkunde und verwandte Wissenschaften in Darmstadt. I. Bücher aufgestellt in Dezember 1856. 8vo. pp. 30.

#### DEIDESHEIM.

# Pollichia: Naturwissenschaftlicher Verein der bayerischen Pfalz.

Erster Jahresbericht der Pollichia, eines naturwissenschaftlichen Vereins der bayerischen Pfalz. Herausgegeben von dem Ausschusse des Vereins. Landau, 1843. 8vo.

Zweiter	Berieht.	Neustadt a. d.	Haardt,	1844.
Dritter	"	"	44	1845.
Vierter	"	"	"	1846.
Fünfter	6.6	4.6	"	1847.
Sechster	"	**	"	1848.
Siebente	r "	"	"	1849.
Achter	"	"	6.6	1850.
Neunter	"	"	"	1851.
Zehnter	"	"	"	1852.
Elfter	"	Speyer,		1853.

Statuten der Pollichia, eines naturwissenschaftlichen Vereins für die Pfalz. Zweite Ausgabe. Neustadt a. d. H., 1855. Svo.

Neustadt a. d. Haardt, 1854.

### DRESDEN.

## Kænigliche Polytechnische Schule.

Zwölfter

- Organisationsplan der Königlichen Polytechnischen Schule zu Dresden genehmight durch Ministerial-Verordnung vom 14 März 1855. *Dresden*. 4to.
- Correspondenz-Blatt des Gesammtvereines der deutschen Geschichts- und Alterthums-Vereine. Im Auftrage des Directoriums des Gesammtvereines herausgegeben von Professor Dr. M. L. Löwe. Nos. I, II, 1852. Dresden. 4to.
- Programm zu den am 26 und vom 29 bis 31 Marz 1855 mit den Schülern der Koniglichen Polytechnischen Schule und der Königlichen Baugewerkenschule zu Dresden zu haltenden Prüfungen. Dresden. 4to.
- Idem, zu den Prüfungen am 10, 11, 12, und 18 März 1856; 30 und 31 März und 1 und 2 April 1857.

#### DRESDEN.

## Koenigliehe Blinden-Anstalt zu Dresden.

Jahresbericht über die Königliche Blinden-Austalt zu Dresden auf das Jahr 1856. Dresden. Syo.

### Miscellanea.

Hedwigia. Ein Notizblatt für kryptogamische Studien. Nos. 1—9. Dresden, 1852—1854. 8vo.

### EMDEN.

## Naturforschende Gesellschaft.

- Jahresbericht über die Verrichtungen und den Zustand der Naturforschenden Gesellschaft in Emden im Jahre 1842
  —1847. Emden, 1843—1848. 8vo.
- Jahresbericht über die Wirksamkeit und den Zustand, &c., im Jahre 1848—1852. Emden, 1849—1853. 8vo.
- Jahresbericht der Naturforschenden Gesellschaft in Emden für 1853—1856. Emden, 1854—1857. 8vo.
- Verzeichniss der Naturaliensammlung der Naturforschenden Gesellschaft in Emden. Erstes Heft. *Emden*, 1835. 16mo.
- Kleine Schriften der Naturforschenden Gesellschaft in Emden. Die Gewitter des Jahres 1855. Ein Beitrag zur Physiologie der Atmosphäre von Dr. M. A. F. Prestel. *Emden*, 1856. 8vo.
- Kleine nautische Ephemeriden für das Jahr 1846. Berechnet für den Meridian von Greenwich. Herausgegeben von H. C. Begemann. *Emden.* 8vo.
- Idem for 1847, 1848, 1849, 1850, 1851, 1852, 1853, and 1854.

### ERFURT.

#### Miscellanea.

Miscellania Physico-Medico-Mathematica, oder angeheme, curieuse und nützliche Nachrichten von Physical- und Medicinischen auch dahin gehörigen Kunst- und Literatur-Geschichten, welche in den Winter- und Frühlings-Monaten des Jahres 1727 in Deutschland und andern Reichen sich zugetragen haben, oder bekannt worden

#### ERFURT.

### Miscellanea. — Continued.

sind, von D. Andreas Elias Büchner. Erffurt, 1731. 4to.

Idem, des Jahres 1728, 1729, 1730. Erffurt, 1732-1734.

#### ERLANGEN.

### Universitæts-Bibliothek.

Die Universität Erlangen von 1743 bis 1843. Zum Jubiläum der Universität 1843. Erlangen. Svo.

#### FRANKFURT AM MAIN.

## Gartenbaugesellschaft "Flora."

Protokoll-Auszüge und Verhandlungen der Gartenbaugesellschaft Flora zu Frankfurt am Main. Jahrg. I.—VIII, 1848-55. Frankfurt am Main, 1852-56. 8vo.

## Physikalischer Verein zu Frankfurt.

Statuten des Physikalischen Vereins. Frankfurt am Main, 1836. Svo. pp. 16.

Jahresbericht des Physikalischen Vereins zu Frankfurt am Main für das Rechnungsjahr 1846-47-1853-54. 8vo.

## Senckenbergische naturforschende Gesellschaft.

Museum Senckenbergianum. Abhandlungen aus dem Gebiete der beschreibenden Naturgeschichte, von Mitgliedern der Senckenbergischen naturforschenden Gesellschaft in Frankfurt am Main. I, 1834; II, 1837; III, 1845. Frankfurt am Main. 4to.

Abhandlungen, herausgegeben von der Senckenbergischen Naturforschenden Gesellschaft. Bde I, II, 1. Frankfurt am Main, 1854-55, 1856. 4to.

## Verein fur Geographie und Statistik.

Mittheilungen über physisch-geographische und statistische Verhältnisse von Frankfurt am Main von dem geographischen Vereine daselbst. Hefte II, III. Frankfurt am Main, 1840, 1841. 4to.

### FRANKFURT AM MAIN.

## Verein fur Geographie und Statistik.—Continued.

Jahresbericht des Geographischen Vereins zu Frankfurt a. M. 1853-54 und 1854-55. 12mo.

Satzungen des Frankfurter Vereins für Geographie und Statistik 1854. Frankfurt am Main. 8vo.

### Miscellanea.

Polytechnisches Notizblatt für Gewerbtreibende, Fabrikanten und Künstler. Herausgegeben und redigirt von Prof. Dr. Rud. Böttger in Frankfurt a. M. Jahrg. X, No. 1, 1855. Svo.

### FREIBERG.

## Kæniglich-Sæchsische Bergakademie.

Kalender für den Sächsischen Berg- und Hüttenmann auf das Jahr 1827. Herausgegeben von der Königl. Bergakademie zu Freiberg. Dresden & Freiberg. 8vo.

Idem, for 1828—1851.

Jahrbuch für den Berg- und Hüttenmann auf das Jahr 1852. Herausgegeben und verlegt von der Königl. Bergakademie zu Freiberg. Freiberg. 8vo.

Idem, for 1853—1857.

Magazin für die Oryktographie von Sachsen. Ein Beitrag zur mineralogischen Kenntniss dieses Landes und zur Geschichte seiner Mineralien. In freien Heften herausgegeben von Johann Carl Friesleben. Hefte I—XV, 1828—1848. Extrahefte, I—IV, 1843—1848. Freiberg. Svo.

#### FREIBURG.

# Gesellschaft fur Befærderung der Naturwissenschaften.

Berichte über die Verhandlungen der Gesellschaft für Beförderung der Naturwissenschaften zu Freiburg i. B. Redigirt vom Sekretär der Gesellschaft Dr. MAIER, unter Mitwirkung von Prof. Ecker und Müller. Heft I. Freiburg i. B., 1855. 8vo.

#### FREIBURG.

## Gesellschaft fur Befærderung, etc.—Continued.

Ueber die Photographie des Spectrums von Dr. L. v. Baeo und Dr. J. Müller. Freiburg im Breisgau. 4to.

## FRIEDBERG.

### Blinden-Anstalt.

Vierter Jahres-Berieht der Blinden-Anstalt zu Friedberg im Grossherzogthum Hessen, nebst Rechnungs-Ablage vom 1 Januar 1853 bis zum 31 Dezember 1853. Friedberg, 1854. 8vo.

Seehster Jahresbericht 1855. Friedberg, 1856. Siebenter "1856." 1857.

#### GIESSEN.

## Oberhessische Gesellschaft für Natur- und Heilkunde.

Zweiter Bericht der Oberhessischen Gesellschaft für Naturund Heilkunde. Giessen, 1849. 8vo.

Dritter Berieht, &c. Giessen, 1853. Vierter Berieht, &c. "1854. Fünfter Berieht, &c. "1855.

Seehster Bericht, &c. "1857.

#### Miscellanea.

Jahresbericht über die Fortsehritte der reinen, pharmaceutischen und technischen Chemie, Physik, Mineralogie und Geologie. Unter Mitwirkung von H. Buff, E. Dieffenbach, C. Ettling, F. Knapp, H. Will, F. Zamminer, herausgegeben von Justus Liebig und Hermann Kopp. Giessen, 1847—1853. 8vo.

(Purchased.)

#### GLOGAU.

#### Miscellanea.

Uranus, oder tägliche, für Jedermann fassliche Uebersieht aller Himmelserscheinungen im Jahre 1846. Bearbeitet und zusammengestellt von Ernst Schubert und Hugo von Rothkirch, und herausgegeben von Dr. P. H. L. von Boguslawski. Glogan, 1845. 8vo.

Idem, im Jahre 1847. Glogau, 1846. Svo.

### GERLITZ.

## Naturforschende Gesellschaft.

Abhandlungen der Naturforschenden Gesellschaft zu Görlitz. Bde I—VI, VII, 1, 1855. Görlitz, 1827—1851. 8vo.

Statuten der Naturforschenden Gesellschaft zu Görlitz. Görlitz, 1848. 12mo. pp. 16.

## Oberlausitzische Gesellschaft der Wissenschaften.

Verzeichniss Oberlausizischer Urkunden. Bd. I. vom Jahre 965 bis 1490; II. vom Jahre 1490 bis 1803. Herausgegeben von der Oberlausizischen Gesellschaft der Wissenschaften in Görlitz. Görlitz, 1799—1824. 4to.

Geschichte der Oberlausitzischen Gesellschaft der Wissenschaften in den ersten 50 Jahren. Eine Jubelschrift zur dritten Säkularfeier derselben am 16 August 1854, von Dr. C. G. Th. Neumann. Görlüz, 1854. 8vo.

Neues Lausitzisches Magazin. Im Auftrage der Oberlausitzischen Gesellschaft der Wissenschaften herausgegeben durch deren Secretär, Dr. Ernst Tillich. Bde XXIII—XXXI, XXXIII. Görlitz, 1846–56. 8vo.

### GŒTTINGEN.

## Gættingischer Verein Bergmænnischer Freunde.

Studien des Göttingischen Vereins Bergmännischer Freunde. Bde III—VI. Göttingen, 1833—1854. 8vo.

## Kænigliche Gesellschaft der Wissenschaften.

Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Göttingen. Bde I—VI, 1838-53. Göttingen, 1843-56. 4to.

Erste Säcularfeier der Königlichen Gesellschaft der Wissenschaften zu Göttingen am 29sten November 1851.—I. Zur Erinnerung an Albrecht von Haller und zur Geschichte der Societäten der Wissenschaften. Festrede gehalten von Rudolph Wagner.—II. Ein Blick auf die äussere Geschichte der Königlichen Gesellschaft der Wissenschaften zu Göttingen in ihrem ersten Jahrhundert,

#### GŒTTINGEN.

# Kenigliche Gesellschaft der Wissenschaften.— Continued.

vorgelesen von Joh. Friedr. Ludw. Hausmann. Göttingen, 1852. 4to.

Nachrichten von der G. A. Universität und der Königl. Gesellschaft der Wissenschaften zu Göttingen, January 30, 1854. 16mo. pp. 25—56.

Göttingische Gelehrte Anzeigen. Unter der Aufsicht der Königl. Gesellschaft der Wissenschaften. 1841—1851. Göttingen. 33 vols. 12mo.

Physikalisch-ökonomische Bibliothek, worinn von den neuesten Büchern, welche die Naturgeschichte, Naturlehre und die Land- und Stadtwirthschaft betreffen, zuverlässige und vollständige Nachrichten ertheilet werden, von Johann Beckmann. Bde I—XX. Göttingen, 1770–98. 8vo.

#### GOTHA.

# Geographische Anstalt.

Mittheilungen aus Justus Perthes' Geographischer Anstalt über wichtige neue Erforschungen auf dem Gesammtgebiete der Geographie von Dr. A. Petermann. 1855, 1856, 1857. Gotha. 4to.

# Thuringer Gartenbau-Vereins zu Gotha.

Seehszehnter Jahresbericht des Thüringer Gartenbau-Vereins zu Gotha für das Jahr 1844—1845. Gotha. 8vo.

Siebzehnter Jahresbericht. Gotha, 1851.

Achtzehnter " 1852.

Neunzehnter " " 1852.

Zwanzigster " 1853.

#### GREIFSWALD.

# Baltischer Verein fur Færderung der Landwirthschaft.

Verhandlungen des Baltischen Vereines für Förderung der Landwirthschaft. Jahrg. 1849-53. *Greifswald*, 1850-1854. Svo.

#### GREIFSWALD.

# Gartenbau-Verein fur Neuvorpommern und Rugen.

Erster und zweiter Jahresbericht und Mittheilungen des Gartenbau-Vereins fur Neuvorpommern und Rügen. Greifswald, 1847. 8vo.

Dritter Jahresbericht.	Greifswald,	1848. 1850.	
Vierter und fünfter Jahresbericht.			"
Sechster und siebenter	"	"	1852.
Achter und neunter	"	"	1854.

#### K. P. Staats- u. landwirthschaftl. Academie Eldena.

Ueber Staats- und landwirthschaftliche Academien und deren Verbinding mit Universitäten, nebst einer kurzen Nachricht über die königlich preussische Staats- und landwirthschaftliche Academie Eldena bei Greifswald, von Dr. E. BAUMSTARK. Greifswald, 1839. Svo.

Jahrbücher der Königlich preussischen Staats- und landwirthschaftlichen Academie Eldena. Bde I—III. Greifswald, 1848—1853. Svo.

#### Miscellanea.

Archiv für Mathematik und Physik, mit besonderer Rücksicht auf die Bedürfnisse der Lehrer an höheren Unterrichtsanstalten. Herausgegeben von Johann August Grunert. The XX—XXII, XXIV—XXIX, XXX, I. Greifswald, 1853—1857. 8vo.

(From Prof. J. A. Grunert.)

Archiv skandinavischer Beitrüge zur Naturgeschichte. Herausgegeben von Christian Friedrich Hornschuch. I, II. Greifswald, 1845, 1850. Svo. (Purchased.)

#### HALLE.

# Naturforschende Gesellschaft.

Abhandlungen der Naturforschenden Gesellschaft zu Halle. I, I; II, III, IV, I. Halle, 1853-56. 4to.

#### HALLE.

#### Naturwissenschaftlicher Verein in Halle.

Jahresbericht des Naturwissenschaftlichen Vereins in Halle. Zweiter Jahrg. vom Juni 1849—1850. Berlin, 1850. 8vo.

Dritter Jahrgang 1850. Berlin, 1851.

Vierter " 1851. " 1852.

Fünfter " 1852. " 1853.

(Jahrg. I, VI, et seq. wanting.)

Zeitschrift für die gesammten Naturwissenschaften. Heransgegeben von dem Naturwissenschaftlichen Vereine für Sachsen und Thüringen in Halle. Bde I—IX, Jahrg. 1853–57. *Halle*. Svo.

Auszug aus den Sitzungs-Protokollen des Naturwissenschaftlichen Vereins in Halle. (Erstes Jahr vom Juni 1848—Juni 1849.) *Halle*. 8vo.

Statuten des Naturwissenschaftlichen Vereines in Halle. Halle, 1850. Svo.

Abhandlungen des Naturwissenschaftlichen Vereines für Sachsen und Thüringen in Halle. Herausgegeben von C. Giebel und W. Heintz. Ersten Bandes Erstes Heft. Berlin, 1856. 4to.

# Thuringisch-sæchsischer Verein.

Neue Mittheilungen aus dem Gebiete historisch-antiquarischer Forschungen. Im Namen des mit der Köuigl. Universität Halle-Wittenberg verbundenen Thüringischsächsischen Vereins für Erforschung des vaterländischen Alterthums und Erhaltung seiner Denkmale herausgegeben von dem Secretair desselben, Dr. R. Ed. Förstemann. Bde I—VII. Halle, 1834-46. Svo.

#### Miscellanea.

Allgemeine Monatsschrift für Literatur. Herausgegeben von Dr. L. Ross und Dr. G. Schwetschke. 1850, i, ii; 1851, ii; 1852, i, ii; 1853, i, ii; 1854. Halle. 8vo. (Purchased.)

Der Naturforscher. Stück II—XXX. Halle, 1774—1804. Svo.

Linnæa. Ein Journal für die Botanik in ihrem ganzen

#### HALLE.

#### Miscellanea. - Continued.

Umfange. Herausgegeben von D. F. L. von Schlechtendal. Bde I—XXVIII, Jahrg. 1835-56. Berlin und Halle. 8vo.

(Wanting Vol. IV & XXVI, VI.)

Botanische Zeitung. Jahrg. XI, Stück 20, 22; XII, 45; XIII, 14, 37. *Halle*, 1843—1845. 4to.

Archiv für die Physiologie, von den Professoren D. Joh. Christ. Reil und D. J. H. F. Autenrieth. Bde I—XII. Halle, 1796—1815. 8vo.

Deutsches Archiv für die Physiologie. In Verbindung mit den Herrn Albers, Autenrieth, Blumenbach, Döllinger, Dzóndi, Emmert, Ermen, Harles, Horkel, u. anderen, herausgegeben von J. F. Meckel. Bde I—VIII. Halle und Berlin. 1815–23. 8vo.

Unterhaltungen für Dilettanten und Freunde der Astronomie, Geographie und Meteorologie. Herausgegeben von G. A. Jahn. Jahrg. I—X, XI, 1—38, 42—50. Leipzig und Halle, 1847–57. Svo.

(Wanting IV, Title & No. 7; V, Title & Nos. 22, 36—38; VII, 2, 33; VIII, 7—11, 27—31, 39; IX, Title & No. 44; X, 40—42; XI, 39—41.)

Jahrbuch der Chemie und Physik, als eine Zeitschrift des Wissenschaftlichen Vereins zur Verbreitung von Naturkenntniss und höherer Wahrheit; herausgegeben von Dr. J. S. C. Schweiger und Dr. Fr. W. Schweiger Seidel. 1825, I, II, III; 1826, I, II, III; 1827, I, II, III; 1828, I, II, III; 1829, I, II, II, III, IV [forming Vols. XXXIII—LVII of the "Journal für Chemie und Physik." See under Nürnberg]. Halle. 8vo.

(From Dr. J. S. C. Schweigger.)

#### HAMBURG.

# Allgemeine Armen-Anstalt.

Nachrichten an Hamburgs wohlthätige Einwohner über den Fortgang der allgemeinen Armen-Anstalt. Nachrichten IV—IX, XXXVII. *Hamburg*, 1791, 1816. 4to.

(Bound up with the Preetzer Wochenblatt.)

#### HAMBURG.

### Naturwissenschaftliche Gesellschaft.

Bericht über die Thätigkeit der Naturwissenschaftlichen Gesellschaft in Hamburg seit ihrer Stiftung bis zu der 200sten Versammlung derselben am 29 November 1854; abgestattet von K. G. Zimmermann, Dr. Hamburg. Svo.

Mittheilungen aus den Verhandlungen der Naturwissenschaftlichen Gesellschaft in Hamburg vom Jahre 1845. Hamburg, 1846. 8vo.

Jahresbericht der Hamburgischen Naturwissenschaftlichen Gesellschaft. Abgestattet am 8 Januar 1847 vom Präsidenten derselben. *Hamburg*. 8vo.

#### Naturwissenschaftlicher Verein.

Abhandlungen aus dem Gebiete der Naturwissenschaften, herausgegeben von dem *Naturwissenschaftlichen Vereine* in Hamburg. I, 1846; II, II, 1852; III, 1856. *Ham-burg*. 4to.

#### Sternwarte.

Meteorological Observations made at the Observatory of Hamburg by M. RÜMKER. 1853—1856. 4to.

#### Miscellanea.

Allgemeine deutsche Naturhistorische Zeitung. Im Auftrage der Gesellschaft Isis in Dresden und unter Mitwirkung der Herren A. E. Brehm, R. Brehm, etc., herausgegeben von Dr. Adolph Drechsler. Neue Folge. I—III. Hamburg, 1855—1857. 8vo.

Hamburgisches Magazin, oder gesammelte Schriften, zum Unterricht und Vergnügen, aus der Naturforschung und den angenehmen Wissenschaften überhaupt. Bde I—XXVI. Hamburg, 1748-62. 8vo.

Dreyfaches Universalregister und Repertorium über die 26 Bände des Hamburgischen Magazins, oder der gesammleten Schriften aus der Naturforschung, der Œkonomie und den nützlichen Wissenschaften. Hamburg und Leipzig, 1767. Svo.

Neues Hamburgisches Magazin, oder Fortsetzung gesammelter Schriften aus der Naturforschung, der allgemeinen

#### HAMBURG.

#### Miscellanea.—Continued.

Stadt- und Land-Oekonomie und den angenehmen Wissenschaften überhaupt. Bde I—XVIII. Hamburg und Leipzig, 1767–77. Svo.

Hamburg und Altona. Eine Zeitschrift zur Geschichte der Zeit, der Sitten und des Geschmacks. 1801-2, I—IV; 1803, I—IV; 1804, I—IV; 1805, I—IV. Hamburg. 8vo.

#### HANNOVER.

# Gewerbe-Verein fur das Kænigreich Hannover.

Mittheilungen des Gewerbe-Vereins für das Königreich Hannover. Neue Folge. Jahrg. 1853—1857. Redaktion: Direktor Karmarsch.—Amtsassessor Von Rud-Loff. Hannover. 4to.

### Miscellanea.

Archiv der Pharmaeie. Unter Mitwirkung der Herrn Bredschneider, Casper, Droste, &c., herausgegeben von L. Bley. Zweite Reihe. Bde LXXXI—LXXXIV, LXXXIX—XCII. (Der ganzen Folge Bde CXXXI—CXXXIV, CXXXIX—CXLII.) Hannover, 1855, 1857. 8vo.

#### HEIDELBERG.

#### Miscellanea.

Heidelberger Jahrbücher der Literatur. Jahrg. XLIII, XLIV, XLV, No. 15. 1850, 1851, 1852. *Heidelberg*. 8vo.

(Purchased. Wanting Jahrg. XLIV, No. 60.)

#### HERMANNSTADT.

# Verein fur Siebenburgische Landeskunde.

Jahresbericht des Vereines für Siebenbürgische Landeskunde für das Jahr 1853, vom Vereins-Sekretär. Hermannstadt, 1854. 8vo. pp. 17.

#### INNSBRUCK.

#### Ferdinandeum.

- Neue Zeitschrift des Ferdinandenms für Tirol und Vorarlberg. Herausgegeben von den Kuratoren desselben. Bde I—XII, 1835—1846. 8vo.
- Zeitschrift des Ferdinandeums für Tirol und Vorarlberg. Herausgegeben von dem Verwaltungs-Ausschusse desselben. Dritte Folge. Hefte I—III, VI. Innsbruck, 1853, 1857. 8vo.
- Ferdinandeum. Vierundzwanzigster combinirter Jahresbericht des Verwaltungs-Ausschusses für die Jahre 1847—1850. *Innsbruck*, 1851. 8vo.
- Fünfundzwanzigster Jahresbericht 1851-1852. *Innsbruck*, 1853. Svo.
- Sechsundzwanzigster Jahresbericht 1853-1854. Innsbruck, 1856. Svo.
- Siebenundzwanzigster Jahresbericht 1855–1856. *Innsbruck*, 1857. Svo.

# Naturhistorisches Landesmuseum von Kærnten.

Jahrbuch des Naturhistorischen Landesmusenms von Kärnten. Herausgegeben von J. L. Canaval. Jahrg. I, II, 1852, 1853. Klagenfurt. 8vo.

(From the University Library.)

#### JENA.

# Grossherzogl. herzogl. sæchs. Gesammt-Universitæt.

Annales Academiæ Jenensis. I. Jenæ, 1823. 4to.

# Verein fur Thuringische Geschichte und Alterthumskunde.

Zeitschrift des Vereins für Thüringische Geschichte und Alterthumskunde. Erster Band. Jena, 1852—1854. 8vo.

#### Miscellanea.

Isis oder Encyclopädische Zeitung von Oken. Jahrg. 1817
—1848. Jena, Zurich, and Leipzig. 4to.

#### KARLSRUHE.

# Grossherzogliche Hofbibliothek.

Zeitschrift für die Geschichte des Oberrheins. Herausgegeben von dem Landesarchive zu Karlsruhe, durch den Direktor desselben, F. J. Mone. Bde I—VI. Karlsruhe, 1850—1855. 8vo.

#### KIEL.

# Landwirthschaftlicher Generalverein des Herzogthums Holstein.

Landwirthschaftliches Wochenblatt für die Herzogthümer Schleswig-Holstein und Lauenburg. Herausgegeben von dem Landwirthschaftlichen Generalverein des Herzogthums Holstein, 1854. Kiel. 4to.

#### Universitæt zu Kiel.

Schriften der Universität zu Kiel aus den Jahren 1854-56. Bde I—III. Kiel, 1855-57. 4to.

# Schleswig-Holstein-Lauenburgische Gesellschaft für vaterlændische Geschichte.

Archiv für Staats- und Kirchengeschichte der Herzogthümer Schleswig-Holstein, Lauenburg und der angrenzenden Länder und Städte. Namens der S. H. L. Gesellschaft für vaterländische Geschichte, redigirt von Michelsen und Asmussen. Bde I—V. Altona, 1833—43. 8vo.

Nordalbingische Studien. Neues Archiv der Schleswig-Holstein-Lauenburgischen Gesellschaft für vaterländische Geschichte. Bde I.—V. VI. 1. Kiel, 1844–51. 8vo.

Urkundenbuch zur Geschichte des Landes Dithmarschen. Gesammelt und Namens der Schleswig-Holstein-Lauenburgischen Gesellschaft für Vaterlündische Geschichte herausgegeben von Andr. Ludw. Jac. Michelsen. Altona, 1834. 4to.

Urkundenbuch zur Geschichte des Landes Wirthmarschen. Gesammelt and Namens der Schleswig-Holstein-Lauenburgischen Gesellschaft für vaterländische Geschichte

#### KIEL.

Schleswig-Holstein-Lauenburgische Gesellschaft für vaterlændische Geschichte.—Continued.

heransgegeben von A. L. J. Michelsen. Altona, 1834. 4to.

Urkundensammlung der Schleswig-Holstein-Lauenburgischen Gesellschaft für vaterländische Geschichte. Bde I, 1839–49; II, 1, 1842, 11, 1848. Kiel. 4to.

# Schleswig-Holstein-Lauenburgische Gesellschaft für die Sammlung und Erhaltung vaterlændischer Alterthumer.

Erster Bericht der Königl. Schleswig-Holstein-Lauenburgischen Gesellschaft für die Sammlung und Erhaltung vaterländischer Alterthümer. Erstattet von dem Vorstande gedachter Gesellschaft. Kiel, 1836. 8vo.

 Zweiter Bericht, 1837.
 Eilfter Bericht, 1846.

 Vierter " 1832.
 Zwölfter " 1847.

 Fünfter " 1840.
 Dreizehnter " 1848.

 Seehster " 1841.
 Vierzehnter " 1849.

 Achter " 1843.
 Fünfzehnter " 1850.

Der Silberfund von Farve beschrieben und Namens der S. H. L. Gesellschaft für Sammlung und Erhaltung vaterlündischer Alterthümer bekannt gemacht von Dr. J. FRIEDLENDER und Prof. K. MULLENHOFF. Kiel, 1850. 8vo. pp. 68.

Zur Runenlehre. Zwei Abhandlungen von R. v. Liliencron und K. Mullenhoff, Professoren in Kiel. *Halle*, 1852. Svo. pp. 67.

#### Miscellanea.

Astronomische Nachrichten, begründet von H. C. Schu-Macher. Herausgegeben von Professor Dr. C. A. F. Peters. XXXIX—XLIII, XLV. Altona, 1855-57. 4to.

#### KŒNIGSBERG.

# Kænigliche Universitæts-Sternwarte.

Astronomische Beobachtungen auf der Königlichen Universitäts-Sternwarte in Königsberg, von F. W. Bessel. Abthl. I—XXXI, 1813—1852. Königsberg, 1815—57. fol.

(Wanting XXIX.)

#### Miscellanea.

Königsberger Naturwissenschaftliche Unterhaltungen. Bde I, 1847; II, 1, 1848, 11, 1851, 111, 1852. Neue Folge. I, 1, 1854, 11, 1856. Königsberg. 8vo.

#### KREMSMÜNSTER.

# Magnetische Observatorium.

Ueber das Magnetische Observatorium in Kremsmünster und die vom Jahre 1839–50 aus den Beobachtungen abgeleiteten Resultate von P. Augustin Reslieber. Wien, 1854–57. 4to.

Idem, in den Jahren 1851, 1852, 1853. Wien, 1856. Idem, im Jahre 1854. Wien, 1857.

#### LEIPZIG.

# Deutsche Morgenlændische Gesellschaft.

Zeitschrift der Deutschen Morgenländischen Gesellschaft, herausgegeben von den Geschäftsführern. Bde I—XI. Leipzig, 1847—1857. 8vo.

Jahresbericht der Deutschen Morgenländischen Gesellschaft für das Jahr 1845. Leipzig, 1846. 8vo.

Abhandlungen für die Kunde des Morgenlandes, herausgegeben von der Deutschen Morgenländischen Gesellschaft unter der verantwortlichen Redaction des Prof. Dr. Hermann Brockhaus. Bd. I, ii. Leipzig, 1857. 8vo.

### Furstlich Jablonowski'sche Gesellschaft.

Jahresbericht der Fürstlich Jablonowski'schen Gesellschaft im Mürz 1854 & April 1856. Leipzig. 8vo.

Preisschriften gekrönt und herausgegeben von der Fürst-

#### Furstlich Jablonowski'sche Gesellschaft.—Cont'd.

lich Jablonowski'schen Gesellschaft zu Leipzig.—IV. J. Zech, Astronomische Untersuchungen über die wichtigeren Finsternisse, welche von den Schriftstellern des classischen Alterthums erwähnt werden. Leipzig, 1853. 8vo.

# Kæniglich Sæchsische Gesellschaft der Wissenschaften.

Abhandlungen der Königlich Sächsischen Gesellschaft der Wissenschaften. Bde I, II. Leipzig, 1846, 1850. 8vo.

Berichte über die Verhandlungen der Königlich Sächsischen Gesellschaft der Wissenschaften zu Leipzig. Bde I, II. Aus den Jahren 1846, 1847—1848. *Leipzig*, 1848, 1849. 8vo.

Idem. Philologisch-historische Classe. Bde I—VII, VIII, 1, 11. Leipzig, 1849—1856. 8vo.

Idem. Mathematisch-physische Classe. Bde I—VIII, IX, I. Leipzig, 1849—1857. 8vo.

Bericht über die Schriften welche die Kæniglich Sæchsische Gesellschaft der Wissenschaften in Leipzig seit ihrer Begründung bis jetzt veröffentlicht hat. *Leipzig*, 1853. 8vo. pp. 10.

Drobisch (M. W.), Nachträge zur Theorie der Musikalischen Tonverhältnisse. Leipzig, 1855. 8vo.

Drobisch (M. W.), Ueber Musikalische Tonbestimmung und Temperatur. Leipzig. Svo.

Sebeck (A.), Ueber die Querschwingungen gespannter und nicht gespannter elasticher Stäbe. Leipzig, 1849. 8vo.

Mobius (A. F.), Uber die Grundformen der Linien der dritten Ordnung. Leipzig, 1849. 8vo.

Weber (Willi,), Elektro-dynamische Maassbestimmungen, insbesondere Widerstandsmessungen. Leipzig, 1850. 8vo.

Weber (Wilh,), Elektro-dynamische Maassbestimmungen, insbesondere über Diamagnetismus. *Leipzig*, 1852. Svo.

Kohlrausch (R.) und Wilhelm Weber, Elektro-dynamische Maassbestimmungen, insbesondere Zurückführung der Stromintensitäts-Messungen auf mechanisches Maas. Leipzig, 1856. 8vo.

# Keniglich Sæchsische Gesellschaft der Wissenschaften.—Continued.

- Hofmeister (W.), Beiträge zur Kenntniss der Gefässkryptogamen.—I. Die Entwickelungsgeschichte der Isoëtes lacrustis. *Leipzig*, 1852. Svo.
- Hofmeister (W.), Beitrage zur Kenntniss der Gefässkryptogamen.—II. Farrnkräuter. Ophioglosseen. Salvinia. Mit 13 Tafeln. Leipzig, 1857. 8vo.
- Polemii Silvii Laterculus. Herausgegeben von Theodor Mommsen. Leipzig, 1853. 8vo.
- Volusii Maeciani Distributio Partinm. Herausgegeben von Theodor Mommsen. Leipzig, 1853. Svo.
- Schlömlich (O.), Ueber einige allgemeine Reihenentwickelungen und deren Anwendung auf die elliptischen Funktionen. Leipzig, 1854. 8vo.
- Schlömilch (O.), Ueber die Bestimmung der Massen und der Trägheitsmomente symmetrischer Rotationskörper von ungleichförmiger Dichtigkeit. Leipzig, 1854. Svo.
- D'Arrest (H.), Resultate aus Beobachtungen der Nebelflecken und Sternhaufen. Erste Reihe. Leipzig, 1856. Svo.
- Hansen (P. A.), Auseinandersetzung einer zweckmässigen Methode zur Berechnung der absoluten Störungen der kleinen Planeten, 1856-7. Zweite Abhandlung. Leipzig, 1857. Svo.
- HANKEL (W. G.), Elektrische Untersuchungen. Zweite
   Abhandlung: Ueber die thermoelektrischen Eigenschaften des Boracites. Leipzig, 1857. 8vo.

# Polytechnische Gesellschaft.

Die Leipziger Polytechnische Gesellschaft. Fünfter Bericht. 1844—1856. Leipzig, 1857. 8vo. pp. 70.

# University Library.

- Die urkundlichen Quellen zur Geschichte der Universität Leipzig in den ersten 150 Jahren ihres Bestehens, von Friedrich Zarncke. Leipzig. 8vo.
- Leipziger Repertorium der deutschen und ausländischen Literatur. Unter Mitwirkung der Universität Leipzig

# University Library.—Continued.

herausgegeben von Dr. E. G. GERSDORF. Jahrg. VII-Leipziq, 1849—1855. 8vo.

(Wanting, Jahrg. I—VI; IX, III, Heft 5; X, III.)

#### Miscellanea.

Acta Eruditorum, Annis MDCLXXXII-MDCCXXXI Lipsiae. publicata. 4to.

Acta Eruditorum. Nova Annis MDCCXXXII — MDCCXLV publicata. Lipsiae. 4to.

Akademische Monatsbericht. Centralorgan für die Gesammtinteressen deutscher Universitäten. Herausgegeben under der Mitwirkung der Herren Professoren Dr. Bluhme in Bonn, Dr. Bülau, Dr. Erdmann in Leipzig, Dr. Hoffmann in Würzburg, Hofrath Dr. Oppolzer in Wien, Geheimrath Dr. V. Vangerow in Heidelberg, und anderer akademischer Lehrer von Dr. J. J. LANG und Dr. H. TH. Schletter. Der "Deutschen Universitäts-Zeitung" Jahrg. III, 1851; IV, 1852; V, 1853 (sign. 15 and 16 wanting); VI, I, II, III, 1854. Leipzig. Svo.

Allgemeine Encyklopädie der Wissenschaften und Künste in alphabetischer Folge von genannten Schriftstellern bearbeitet und herausgegeben von J. S. Ersch und J. G. GRUBER. Erste Section. Bde I-LXVI. Leipzig, 1818 Zweite Section. I-VI, VIII-XVII, XIX -1857.-XXXI. Hamburg und Leipzig, 1827-1855. Dritte Section. I-XIX, XXI-XXV. Hamburg und Leipziq, 1830—1850. 4to.

(From F. A. Brockhaus.)

Allgemeine Encyklopädie der Physik. Bearbeitet von C. W. Brix in Berlin, G. Decher in Augsburg, F. C. O. Von Feilitzsch in Griefswald, F. Grashof in Berlin, F. Harms in Kiel, H. Helmholtz in Bonn, G. Karsten in Kiel, H. Karsten in Rostock, C. Kuhn in München, J. Lamont in München, F. Metz in Augsburg, J. Pfeffer in Augsburg, E. E. Schmidt in Jena, F. Schultz in Rostock, L. Siedel in München, G. Weyer in Kiel. Herausgegeben

#### Miscellanea.—Continued.

von Gustav Karsten. Lief. I—III. Leipzig, 1856, 1857. 8vo.

- Allgemeine Literatur-Zeitung vom Jahre 1849. Erster Band. Januar bis Juni. Halle und Leipzig. 4to.
- Annalen der Physik. Angefangen von D. FRIEDR. ALBR. CARL GREN, fortgesetzt von Ludwig Wilhelm Gilbert. Bde I—LXXVI. Halle und Leipzig, 1799—1824. 8vo.
- Sach- und Namen-Register zu den 76 Bänden der vom Prof. Dr. Ludwig Wilhelm Gilbert vom Jahre 1799 bis 1824 herausgegebenen Annalen der Physik und der physikalischen Chemie. Angefertigt von Heinrich Müller. Leipzig, 1826. 8vo.
- Annalen der Physik und Chemie. Zweite Reihe. Herausgegeben zu Berlin von J. C. Poggendorff. Bde I—XXVII, 1834—1842. Leipzig. 8vo.

(Vol. XIX wanting.)

- Idem. Dritte Reihe. XIII—XXX, 1848—1853. Ergänznugsbände I, III, IV. Vierte Reihe. I—XI, 1854-57. (Wanting Vierte Reihe, II, III, IV; III.)
- Biographisch-literarisches Handwörterbuch zur Geschichte der exacten Wissenschaften, enthaltend Nachweisungen uber Lebensverhältnisse und Leistungen von Mathematikern, Astronomen, Physikern, Chemikern, Mineralogen Geologen usw. aller Völker und Zeiten, gesammelt von J. C. Poggendorff. Erste Lieferung. Leipzig, 1858. 8vo.
- Anzeiger für Bibliographie und Bibliothekwissenschaft. Herausgegeben von Dr. Julius Petzholdt. Dresden und Leipzig, 1840—1847. Halle, 1848—1854. 8vo.

(Wanting, 1853, v, vi; 1854, i—x.)

- Zeitung für Zoologie, Zootomie und Palæontologie. Herausgegeben von Dr. E. D'Alton, und Dr. H. Burmeister. Jahrg. 1848, I. II. Leipzig. 4to.
- Archiv für Anatomie und Physiologie. In Verbindung mit mehreren Gelehrten herausgegeben von Johann Friedrich Meckel. I—VI, 1826—1832. Leipzig. 8vo.
- Archiv für den thierischen Magnetismus. In Verbindung mit mehreren Naturforschern herausgegeben von Dr.

#### Miscellanea. — Continued.

- C. A. ESCHENMAYER, Dr. D. G. KIESER, Dr. FR. NASSE. Bde I.X. Altenburg und Leipzig, 1817—1821. 8vo.
- Conversations-Lexikon der neuesten Zeit und Literatur. In vier Bänden. I—IV. Leipzig, 1832—1834. 8vo.
- Allgemeine deutsche Real-Encyklopädie für die gebildeten Stände. (Conversations-Lexikon.) I—XII. Leipzig, 1833-37. 8vo.
- Universal-Register des Conversations-Lexikons. Leipzig, 1839.
- Illustrirte Zeitung. Wöchentliche Nachrichten über alle Ereignisse, Zustände und Persönlichkeiten der Gegenwart. Bde I—XVIII, 1843—1852. Leipzig. fol.
- Journal für Praktische Chemie. Herausgegeben von Otto Linne Erdmann und Gustav Werther. Siebzigsten Bandes sechstes Heft. Leipzig, 1857. 8vo.
- Neue gesellschaftliche Erzählungen für die Liebhaber der Naturlehre, der Haushaltungswissenschaft, der Arztneykunst und der Sitten. I—IV. Leipzig, 1758—1762. 8vo.
- Rhea. Zeitschrift für die gesammte Ornithologie. Im Vereine mit ornithologischen Freunden herausgegeben von Dr. Friedrich August Ludwig Thienemann. Hefte I, II. Leipzig, 1846, 1849. 8vo.
- Serapeum. Zeitschrift für Bibliothekwissensehaft, Handschriftenkunde und ältere Litteratur. Im Vereine mit Bibliothekaren und Litteraturfreunden herausgegeben von Dr. Robert Naumann. Jahrg. I—XVI. Leipzig, 1840—1855. 8vo.
- Wöchentliche Unterhaltungen für Dilettanten und Freunde der Astronomie, Geographie und Witterungskunde. Herausgegeben von Dr. G. A. Jahn. [See under Halle, p. 56: Unterhaltungen für Dilletanten und Freunde der Astronomie, &c.]
- Zeitschrift für wissenschaftliche Zoologie. Herausgegeben von Carl Theodor v. Siebold und Albert Kölliker. I—VI, VII, I, II, III. Leipzig, 1849—1855. 8vo. (Purchased.)

### Miscellanea. - Continued.

Zeitschrift für die Entomologie. Herausgegeben von Ernst Friedrich Germar. II, i. Leipzig, 1840. 8vo. (From Prof. Jaeger.)

### LÜNEBURG.

#### Naturwissenschaftlicher Verein.

Denkschriften des Naturwissenschaftlichen Vereins für das Fürstenthum Lüneburg in Lüneburg. Erster Band. Monographie des Borazites von C. H. Otto Volger. *Hannover*, 1855. 8vo.

Naturwissenschaftlicher Verein des Fürstenthums Lüneburg. Lüneburg, 1857. 4to.

#### LUXEMBOURG.

# Societe des Sciences Naturelles du Grand-Duche de Luxembourg.

Société des Sciences Naturelles du Grand-Duché de Luxembourg. Tomes I—III. Luxembourg, 1853—1855. 8vo.

#### MANNHEIM.

#### Sternwarte.

Die Sternwarte zu Mannheim. Beschrieben von ihrem Curator, dem Staats- und Cabinetstrath Klüber. Mannheim, 1811. 4to.

# Verein fur Naturkunde.

Jahresberichte des Mannheimer Vereines für Naturkunde. 1839-56. 8vo.

#### MARBURG.

# Gesellschaft zur Befærderung der gesammten Naturwissenschaften.

Schriften der Gesellschaft zur Beförderung der gesammten Naturwissenschaften zu Marburg. Bde I—VIII. Marburg, 1823—1857. 8vo.

#### MEININGEN.

#### Verein fur Pomologie und Gartenbau.

Der Verein für Pomologie und Gartenbau in Meiningen. Hefte I—VI. Meiningen, 1846-57. 8vo.

#### MEISSEN.

#### Isis.

Chronik des Gartenwesens und Feuilleton der Isis. (Chas. A. Geyer.) Jahrg. 1851—1853. Meissen. 4to.

#### MERSEBURG.

#### Central-Direction fur die Provinz Sachsen.

Zeitschrift des landwirthschaftlichen Central-Vereins der Provinz Saehsen. Jahrg. IV—VII, Zürbig, 1847-50.
4to. VIII—X, Bedra und Halle, 1851-53. XI—XIII, Wallendorf, 1854-56. 8vo.

# MÜNCHEN (MUNICH).

# Kæniglich-Bayerische Akademie der Wissenschaften.

Geschichte der baierischen Akademie der Wissenschaften, auf Verlangen derselben verfertigt von Lorenz Westenrieder. The I, II, 1759—1800. München, 1784, 1807. Svo.

Abhandlungen der Churfürstlich-baierischen Akademie der Wissenschaften. I—X, 1763—1776. München. 4to. (From the Königliche Hof- und Staats-Bibliothek.)

Neue philosophische Abhandlungen der Baierischen Akademie der Wissenschaften. I—VII. München, 1780–97. 4to.

Historische Abhandlungen der Koniglich-Baierischen Akademie der Wissenschaften. I.-V, 1807—1823. München. 4to.

(From the Königliche Hof- und Staats-Bibliothek.)

Abhandlungen der Philosophisch-philologischen Classe der Königlich bayerischen Akademie der Wissenschaften.

#### MÜNCHEN.

# Keniglich Bayerische Akademie der Wissenschaften.—Continued.

I\_VI, 1835—1852; VII, 1853; VIII, I, 1856; II. 1857. München. 4to.

Abhandlungen der Mathematisch-physikalischen Classe der Königlich bayerischen Akademie der Wissenschaften. I—VII, 1832—1855; VIII, I, 1857. München. 4to.

Abhandlungen der Historischen Classe der Königlich-bayerischen Akademie der Wissenschaften. I—VI, 1833—1852; VII, 1853; VIII, 1, 1856. München. 4to.

Bulletin der Königl. Akademie der Wissenschaften. Jahrg. 1847—1853. München. 4to.

Almanach der Königlich-bayerischen Akademie der Wissenschaften für die Jahre 1849 & 1855. München. 12mo.

Gelehrte Anzeigen. Herausgegeben von Mitgliedern der K. bayer. Akademie der Wissenschaften. Bde I—XLIV. München, 1835—1857. 4to.

# Kænigliche Hof- und Staats-Bibliothek.

(See K. Bayer. Akademie der Wissenschaften.)

### Landwirthschaftlicher Verein.

Zeitschrift des landwirthschaftlichen Vereins in Bayern. (Jahrg. XLVI des Centralblattes.) München, 1856. 8vo.

# Munchener Verein fur Naturkunde.

Namen der Mitglieder des Münchener Vereins für Naturkunde. Uebergeben am Stiftungsfeste im May 1849, von G. Tilesius. *München*. 8vo. pp. 8.

Statuten des Münchener Vereins für Naturkunde. Uebergeben am Stiftungsfeste, im Mai 1849, von G. Tilesius. München, 1849. 8vo. pp. 8.

# Polytechnischer Verein.

Kunst- und Gewerbe-Blatt. Herausgegeben von dem Polytechnischen Verein für das Königreich Bayern. Redigirt durch Dr. Kaj. G. Kaiser. Jahrg. XLI, XLII. München, 1855, 1856. 4to.

#### MÜNCHEN.

# Kænigliche Sternwarte.

Ueber das magnetische Observatorium der königl. Sternwarte bei München. Eine öffentliche Vorlesung gehalten in der festlichen Sitzung der königl. Akademie der Wissenschaften am 25 August 1840, von Dr. J. LAMONT. München, 1841. 4to.

Resultate der magnetischen Beobachtungen in München während der dreijährigen Periode 1840, 1841, 1842. Von J. LAMONT. *München*, 1843. 4to.

Annalen der königlichen Sternwarte bei München, auf öffentliche Kosten herausgegeben von Dr. J. LAMONT. Bde I—IX (vollst. Samml. XVI—XXIV), 1848—1857. München. 8vo.

### NEUBRANDEBURG.

# Verein der Freunde der Naturgeschichte in Mecklenburg.

Archiv des Vereins der Freunde der Naturgeschichte in Mecklenburg. Hefte I—VIII, X, XI. Herausgegeben von Ernst Boll. Neubrandeburg, 1847—1856. 8vo. (From L. Vortisch.)

#### NÜRNBERG.

#### Germanisches Museum.

Organismus der Germanischen Nationalmuseums zu Nürnberg. Nürnberg und Leipzig, 1855. 8vo.

Dritter Jahresbericht des Germanischen National Museums zu Nürnberg, von Anfang September 1855 bis 1 October 1856. Nürnberg, 1856. 4to.

Denkschriften des Germanischen Nationalmuseums. Bd. I, I, II. Nürnberg, 1856. 8vo.

Anzeiger für Kunde der Dentschen Vorzeit. Organ des Germanischen Museums. Neue Folge. Vierter Band. Nürnberg, 1857. 4to.

#### Naturhistorische Gesellschaft.

Abhandlungen der Naturhistorischen Gesellschaft zu Nürnberg. Heft I. Nürnberg, 1852. 8vo.

#### NÜRNBERG.

#### Miscellanea.

Archiv für die gesammte Naturlehre, in Verbindung mit Bischof, Förstemann, C. G. Gmelin, Grischow, F. v. Paula Gruithhuisen, Hallaschka, Pl. Heinrich, A. v. Humboldt, John, Kleefeldt, Lichtenberg, Marx, Olbers, Pleischl, Prechtl, Schmidt, Schön, Späth, Wöllner und Zimmermann, herausgegeben vom Dr. K. W. G. Kastner. Bde I—XXVII. Nürnberg, 1824–35. 8vo.

Murr (Christ. Gottl. von), Journal zur Kunstgeschichte und zur allgemeinen Litteratur. I—XVII. Nürnberg, 1775-89. 16mo.

Neues Journal für Chemie und Physik, herausgegeben vom Dr. J. S. C. Schweigger. Band IX, i, ii, iii. Nürnberg, 1823. 8vo.

# PESTH.

A' Magyar Tudos Tarsasag (The Hungarian Scientific Association.)

(See under Buda.)

# PRAG (PRAGUE).

#### Bæhmisches Museum.

Verhandlungen der Gesellschaft des vaterländischen Museums in Böhmen. 1823, 1824, 1828, 1831—1844, 1846—1853, 1855, 1856. *Prog.* 8vo.

Das vaterländische Museum in Böhmen im Jahre 1842. Prag. 8vo.

Nowoceská Bibliothéka, wydáwaná nákladem Ceskeho Museum. V.—Josefa Jungmanna Slowesnost. XII.—W. Władiwoje Tomka deje University Prazské. XV.—Ign. Jana Hanuse Rozbor Filosofie Tomáse ze Stitneho. XVIII.—W. Władiwoje Tomka Dejepis Prahy. Praze, 1846, '49, '52, '55. 8vo.

Casopis Ceského Museum 1852, 1854, 1855. Redaktor, Vaclay Nebesky. *Praze*. 8vo.

#### PRAG.

# Kæniglich-Bæhmische Gesellschaft der Wissenschaften.

- Abhandlungen der Königlichen böhmischen Gesellschaft der Wissenschaften. Fünfte Folge. Bde I—IX. Prag, 1841—1857. 4to.
- Uebersicht sämmtlicher in den bisherigen Bänden von Abhandlungen der K. böhmischen Gesellschaft der Wissenschaften vorkommenden Aufsätze. Für die Abhandlungen der K. böhm. Gesellschaft der Wissenschaften. *Prag*, 1823. 8vo.
- Systematisch und chronologisch geordnetes Verzeichniss sämmtlicher Werke und Abhandlungen der Königl. böhmischen Gesellschaft der Wissenschaften. Verfasst von Ign. J. Hanus. *Prag*, 1854. 8vo.
- Vorträge gehalten in der öffentlichen Sitzung der Königlichen böhmischen Gesellschaft der Wissenschaften bei ihrer ersten Jubelfeier am 14 September, 1836. *Prag*, 1837. 8vo.
- Uebersicht der Sitzungen der Königl. Böhm. Gesellschaft der Wissenschaften im Studienjahre 1852–1853. fol. pp. 2.
- Neue Statuten der K. böhm. Gesellschaft der Wissenschaften. Prag. 4to. pp. 4.
- Berichte über die Versammlungen der Königlichen böhmischen Gesellschaft der Wissenschaften in ihren Sections-Versammlungen von 1840 und 1841. Prag, 1842. 4to.
- Würdigung der alten böhmischen Geschichtschreiber. Eine von der K. böhmischen Gesellschaft der Wissenschaften gekrönte Preisschrift von Franz Palacky. *Prag*, 1830. Svo.
- Magnetische und meteorologische Beobachtungen zu Prag, in Verbindung mit mehreren Mitarbeitern ausgeführt und auf öffentliche Kosten herausgegeben von Karl Kreil und Karl Jelinek. Jahrg. I—VIII, X, 1841—1851. Herausgegeben von Dr. Jos. G. Вöhm und Dr. Adelbert Kunes. Jahrg. XII, XIV—XVII, 1854–57. Prag. 4to.
- Magnetische und geographische Ortsbestimmungen in Böh-

#### PRAG.

# Keniglich-Behmische Gesellschaft der Wissenschaften.—Continued.

men, ausgeführt in den Jahren 1843-1845, von Karl Kreil. Prag, 1846. 4to.

Magnetische und geographische Ortsbestimmungen, im österreichischen Kaiserstaate ausgeführt von Karl Kreil und Karl Fritsch. Jahrg. I—V, 1846—1851. *Prag.* 4to.

Resultate aus den Magnetischen Beobachtungen zu Prag von Karl Kreil. Wien, 1855. 4to.

# K. k. patriotisch-ækonomische Gesellschaft.

Neue Schriften der Kais. königl. patriotisch-ökonomischen Gesellschaft im Konigreiche Böhmen. I—X. Prag, 1828-46. 8vo.

Verhandlungen und Mittheilungen der K. k. patriotischökonomischen Gesellschaft im Konigreiche Böhmen, und des mit ihr verbundenen Schafzüchter-, so wie des pomologischen Vereins. Bde I, II. *Prag*, 1849, 1850. Svo.

Centralblatt der Land- und Forstwirthschaft in Böhmen. Herausgegeben von der K. k. patriotisch-ökonomischen Gesellschaft im Königreiche Böhmen. (Nebst den unentgeltlich beigegebenen: Verhandlungen und Mittheilungen der K. k. patriotisch ökonomischen Gesellschaftin Böhmen.) Jahrg. I—VII, 1850—1856. Prag. 4to.

Wochenblatt der Land-, Forst-, und Hauswirthschaft für den Bürger und Landmann. Herausgegeben von der K. k. patriotisch ökonomischen Gesellschaft im Königreiche Böhmen. Jahrg. I—VII, 1850—1856. Prag. 4to.

Týdennik, casopis pro polni, lesni a domáci hospodárstwi. Rocn. 1850—1853. V Praze. 4to.

Hospodárské Noviny. Roen. V—VII, 1854—1856. V Praze. 4to.

# Naturhistorischer Verein "Lotos."

Lotos, Zeitschrift für Naturwissenschaften herausgegeben vom Naturhistorischen Vereine "Lotos" in Prag. Jahrg. I.-V. Prag, 1851—1855. 8vo.

(Purch'd. Nov'r No. and Title-page for 1853 wanting.)

#### PRAG.

### Schafzuchter-Verein fur Bohmen.

Verhandlungen des Ausschusses des Schaftzüchter-Vereins für Böhmen. Hefte I—XIX. Prag, 1830-55. 8vo.

#### Miscellanea.

Neue Physicalische Belustigungen. Bde I, H. Prag, 1770-71. 8vo.

#### PREETZ.

#### Miscellanea.

Preetzer Wochenblatt und Handels Anzeiger für den Bürger und Landmann. Nos. XX—XXXVII, 1833. Preetz. 4to.

#### REGENSBURG.

### K. bayerische botanische Gesellschaft.

Denkschriften der Königlich-bayerischen botanischen Gesellschaft zu Regensburg. III. Regensburg, 1841. 4to.

Flora, oder allgemeine botanische Zeitung; herausgegeben von der K. bayer. botanischen Gesellschaft zu Regensburg. Neue Reihe. Jahrg. I—XIII. Regensburg, 1843—1855. 8vo.

# Zoologisch-mineralogischer Verein.

Abhandlungen des Zoologisch-mineralogischen Vereines in Regensburg, I—VII. Regensburg, 1849—1856. 8vo.

Korrespondenz-Blatt des Zoologisch-mineralogischen Vereines in Regensburg. Jahrg. I.—XI. Regensburg, 1847—1857. Svo.

#### ROSTOCK.

# Mecklinburgische naturforschende Gesellschaft.

Auszüge aus den Verhandlungen der Mecklinburgischen naturforschenden Gesellschaft. Erstes Heft. Rostock, 1837. Svo.

#### ROSTOCK.

### Naturwissenschaftliches Institut der Universitæt.

Beiträge zur Kenntniss der amerikanischen Manatis. Von HERMANN STANNIUS. Mit 2 lith. Taf. Rostock, 1846. 4to.

#### SCHWERIN.

# Verein fur mecklenburgische Geschichte und Alterthumskunde.

Erster Bericht über die dem Grossherzoglich-mecklenburgischen Antiquarium zu Schwerin in dem Zeitraume von 1834 bis 1844 gewordenen Vermehrungen, als Fortsetzung des Friderico-Franciscei, von G. C. F. Lisch. Schwerin, 1844. 8vo.

Quartalbericht des Vereins für mecklenburgische Geschichte und Alterthumskunde. VIII—XV; XVI, I, II; XVII, XVIII, I; XIX, I; XXII, XXIII, I. Schwerin, 1842 —1857. 8vo.

Jahrbücher und Jahresbericht des Vereins für mecklenburgische Geschichte und Alterthumskunde; herausgegeben von Lisch und Bartsch. Jahrg. III—XXII. Schwerin, 1838—1857. 8vo.

(From L. Vortisch.)

Register über I—XX. Jahrgang der Jahrbücher und Jahresberichte des Vereins für mecklenburgische Geschichte und Alterthumskunde. Von J. G. C. RITTER. Reg. I—III. Schwerin, 1844–56. 8vo.

#### Miscellanea.

Archiv für Landeskunde in den Grossherzogthümern Mecklenburg und Revüe der Landwirthschaft. 1853, 1854. Schwerin. R. 8vo.

#### SPEYER.

# Sternwarte des kænigl. Lyzeums in Speyer.

Astronomische Beobachtungen angestellt auf der Sternwarte des königl. Lyzeums in Speyer, von F. M. Schwerd. I. Abth. Beobachtungen des Jahrs 1826. Speyer, 1829. 4to.

#### STETTIN.

### Entomologischer Verein.

Entomologische Zeitung. Herausgegeben von dem Entomologischen Vereine zu Stettin. Jahrg. I—XVIII. Stettin, 1840—1857. 8vo.

Linnaea Entomologica. Zeitschrift herausgegeben von dem Entomologischen Vereine in Stettin. Bde I—XII. Stettin, 1846—1858. Svo.

#### STUTTGART.

# Kænigl. Centralstelle fur Gewerbe und Handel.

Gewerbeblatt aus Württemberg. Herausgegeben von der K. Centralstelle für Gewerbe und Handel. Jahrg. 1853, 1854, 1856. Stuttgart. 8vo.

# Kænigl. Centralstelle fur die Landwirthschaft.

Wochenblatt für Land- und Forstwirthschaft. Jahrg. VIII. Stuttgart und Augsburg, 1856. 4to.

# Verein fur vaterlændische Naturkunde.

Jahreshefte des Vereins für vaterländische Naturkunde in Württemberg. Jahrg. I—XIII. Stuttgart, 1845—1857. 8vo.

Württembergische Jahrbücher für vaterländische Geschichte, Geographie, Statistik und Topographie. Jahrg. 1850— 1855. Stuttgart. 8vo.

# Wurttembergischer Alterthums-Verein.

Jahreshefte des Wirtembergischen Alterthums-Vereines. Hefte II—V, VII. Stuttgart, 1825-28. fol.

Erster Rechenschaftsbericht des Württembergischen Alterthums-Vereins für das Jahr 1844. Stuttgart. 4to.

Zweiter Rechenschaftsbericht für 1845. Stuttgart. 4to.

Dritter " 1846 und 1847. "
Vierter " 1848 und 1849. "

Sechster " vom 1 Jan. 1852 bis 30 Juni 1854. "

Siebenter " vom 1 Juli 1854 bis 31 Dec. 1855. "

#### STUTTGART.

# Wurttembergischer Alterthums-Verein.—Continued.

Schriften des Württemb. Alterthums-Vereins. Heft I, 1850; III, 1854; IV, 1856. Stuttgart. 8vo.

Mitglieder-Verzeichniss des Württembergischen Alterthums-Vereins im August 1853. 8vo.

# Wurttembergischer ærztlicher Verein.

Medicinisches Correspondenz-Blatt des Württembergischen ärztlichen Vereins. Herausgegeben von den DD. J. F. Blumhardt, G. Duvernoy, A. Seeger. Jahrg. I, No. 29, 1832; VII, No. 18, 1837; XIX, No. 25, 1849; XXIII, No. 26, 1853. Stuttgart. 4to.

# Deutsche Ornithologen-Gesellschaft.

Naumannia. Archiv für die Ornithologie, vorzugsweise Europa's. Organ der deutschen Ornithologen-Gesellschaft. Herausgegeben von Edward Baldamus. Jahrg. I—IV, VII, I—III. Stuttgart und Leipzig, 1850-54, 1857. 8vo.

(Purchased.)

#### Miscellanea.

Neue Encyklopädie der Wissenschaften und Künste für die Deutsche Nation. I—VII. Stuttgart, 1847-54. 8vo. (Wanting VI, III, IV; VII, II.)

Neue illustrirte Zeitschrift. Bde III—X, 1847—1854. Stuttgart. fol.

Polytechnisches Journal. Herausgegeben von Dr. Jo-HANN GOTTFRIED DINGLER. Bde I—CXXXV. Herausgegeben von Dr. Emil Maximilian Dingler. Bde CXXXVI—CXLIV, I—IV. Stuttgart und Augsburg, 1820-57. 8vo.

Technologische Encyklopädie oder alphabetisches Handbuch der Technologie, der technischen Chemie und des Maschinenwesens. Zum Gebrauch für Kameralisten, Oekonomen, Künstler, Fabrikanten und Gewerbtreibende jeder Art. Herausgegeben von Joh. Jos. Prechtl. Bde I—XVI, XIX. Stuttgart, 1830-53. 8vo.

### Miscellanea. - Continued.

Idem. Kupfertafeln. Lief. I—XVI, XIX. Stuttgart. Oblong fol.

#### THARAND.

# Kæniglich Sæchsische Akademie fur Forst- und Landwirthe.

Forstwirthschaftliches Jahrbuch, herausgegeben von der Königlich Süchsischen Akademie für Forst- und Landwirthe zu Tharand. Bde I—VII. Dresden und Leipzig, 1842—1851. 8vo.

Jahrbuch der Königl. Sächs. Akademie für Forst- und Landewirthe zu Tharand. Herausgegeben von den akademischen Lehrern: Freih. v. Berg, A. Cotta, Dr. H. Krutzsch, Pressler, Dr. Schober, Dr. Stein, und Dr. A. Stöckhardt. (Des Forstwirthschaftlichen Jahrbuches Bde VIII, X—XII.) Neue Folge. Bde I, III—V, Leipzig, 1852, 1854—1857. 8vo.

#### TÜBINGEN.

#### Universitæts-Bibliothek.

Tübinger Universitäts Schriften aus den Jahren 1846-55. Tübingen, 1847-1856. 4to.

#### WEIMAR.

#### Miscellanea.

Notizen aus dem Gebiete der Natur- und Heilkunde gesammelt und mitgetheilt von Ludwig Friedrich v. Frorier. Bde I.—L. Erffurt und Weimar, 1822–36. 4to.

Neue Notizen aus dem Gebiete der Natur- und Heilkunde gesammelt und mitgetheilt von Ludwig Friedrich v. Froriep. I—XL. Weimar, 1837-46. 4to.

Notizen aus dem Gebiete der Natur- und Heilkunde gesammelt und mitgetheilt von M. A. Schleiden und Dr. Robert Frorier. Dritte Reihe. I—XI. Weimar, 1847—1849. 4to.

Tagsberichte über die Fortsehritte der Natur- und Heil-

#### WEIMAR.

#### Miscellanea.—Continued.

kunde, erstattet von Dr. Robert Froriep. Weimar. 8vo.

Geographie und Ethnologie. 1852.

Mineralogie und Geologie. 1852.

Physik und Chemie. 1852.

Botanik. 1852.

Anatomie und Physiologie. I, II, 1852.

Zoologie und Palæontologie. I, II, III, 1850 & 1852.

Staatsarzneikunde und medicinische Statistik. 1852.

Psychiatric, bearbeitet von J. F. H. Albers. 1852.

Hygiene und Pharmakologie, von Dr. C. Рн. FALCK. 1852.

Nerven- und Geisteskrankheiten. 1852.

Geburtshülfe und Kinderkrankheiten. 1852.

Medicinische Klinik. I, II, 1851, 1852.

Chirurgische Klinik. I, II, 1851, 1852.

(Purchased.)

#### WETZLAR.

# Deutsche Gesellschaft fur Hydrologie.

Balneologische Zeitung. Correspondenzblatt der Deutschen Gesellschaft für Hydrologie. Heransgegeben von Hofrath Dr. Louis Spengler zu Bad Ems. I—IV, V, I—x. Wetzlar, 1855-57. 8vo.

(Wanting II, Nos. 21, 22; IV, 1.)

# WIEN (VIENNA).

# Kaiserliche Akademie der Wissenschaften.

Denkschriften der Kaiscrlichen Akademie der Wissenschaften. Philosophisch-historische Classe. II—VIII. Wien, 1851—1857. fol. & 4to.

(Wanting I.)

Sitzungsberichte der Philosophisch-historischen Classe der Kaiserlichen Akademie der Wissenschaften. VI—XXII, XXIII, I—IV. Wien, 1851—1857. 8vo.

### Kaiserliche Akademie der Wissenschaften.—Cont'd.

- Denkschriften der Kaiserlichen Akademie der Wissenschaften. Mathematisch-naturwissenschaftliche Classe. I—IV. fol. V—XIII. 4to. Wien, 1850—1857.
- Tafeln zu den Denkschriften der Kaiserlichen Akademie der Wissenschaften. Mathematisch-naturwissenschaftliche Classe. Erster Band. Erste Abtheilung: Abhandlungen von Mitgliedern der Akademie. Wien, 1850. fol.
- Sitzungsberichte der Mathematisch-naturwissenschaftlichen Classe der Kaiserlichen Akademie der Wissenschaften. IV—XXIII, XXIV, I, II. Wien, 1850—1857. 8vo.
- Almanach der Kaiserlichen Akademie der Wissenschaften. III, V—VII. Wien, 1853, 1855-57. 8vo.
- Mitglieder der Kaiserlichen Akademie der Wissenschaften (am Schlusse des Jahres 1853). 4to. pp. 6.
- Fontes Rerum Austriacarum. Oesterreichische Geschichtsquellen. Erste Abtheilung: Scriptores. I, 1855. Zweite Abtheilung: Diplomataria et Acta. V—XIII, XV, 1852—1857. Wien. 8vo.
- Archiv für Kunde österreichischer Geschichts-Quellen. Bde VI—XVII. Wien, 1851—1857.

  (2d part of Vol. IX wanting.)
- Notizenblatt. Beilage zum Archiv für Kunde österreichischer Geschichtsquellen. Herausgegeben von der historischen Commission der Kaiserlichen Akademie der Wissenschaften in Wien. Jahrg. II—VI. Wien, 1852—1856.

(Wanting Vol. I, and Nos. 1 & 2 of Vol. II.)

- Annalen des Wiener Museums der Naturgeschichte. I, II, 1836; II, I, 1839. Wien. 4to.
  (Purchased.)
- Jahrbücher der K. K. Central-Anstalt für Meteorologie und Erdmagnetismus von Karl Kreil. Band IV. Jahrg. 1852. Herausgegeben durch die Kaiserliche Akademic der Wissenschaften. Wien, 1856. 4to.
- Monumenta Habsburgica. Sammlung von Actenstücken und Briefen zur Geschichte des Hauses Habsburg in dem

# Kaiserliche Akademie der Wissenschaften.—Cont'd. Zeitraume von 1473 bis 1576. Zweite Abtheilung: Kaiser Karl V. und König Philipp II. Wien, 1857.

8vo.

# Doctoren-Collegium der medicinischen Facultæt.

Oesterreichische Zeitschrift für practische Heilkunde. Herausgegeben vom Doctoren-Collegium der medicinischen Facultæt in Wien. Redigirt von Joseph Johann Knolz und Georg Preyss. Jahrg. II, III. Wien, 1856, 1857. 4to.

(Jahrg. III wants Title and Contents.)

# K. K. Geologische Reichsanstalt.

Jahrbuch der Kaiserlich-königlichen geologischen Reichsanstalt. Jahrg. I.—VII, VIII, 1. Wien, 1850—1857. royal 8vo.

Allgemeine Uebersicht der Wirksamkeit der K. K. geologischen Reichsanstalt. Jahre 1850—1852. Wien. 8vo.

Uebersicht der Resultate mineralogischer Forschungen in den Jahren 1844—1849. Von Dr. G. A. Kenngott. Wien, 1852. 4to.

Idem, in den Jahren 1850 & 1851. Wien, 1853.
" im Jahre 1852. Wien, 1854.

Abhandlungen der K. K. Geologischen Reichsanstalt. I, 1852; II, 1855. Wien. 4to.

#### K. K. Hof- und Staats-Druckerei.

Geschichte der K. K. Hof- und Staats-Druckerei in Wien, von einem Typographen dieser Anstalt. Wien, 1851. 8vo.

Geschichte der K. K. Hof- und Staats-Druckerei in Wien, von einem Typographen dieser Anstalt. [In German, English, Italian, and French.] Wien, 1851. 8vo.

Album der K. K. Hof- und Staats-Druckerei in Wien. I—IV. Wien, 1851. fol.

# K. K. Geographische Gesellschaft.

- Mittheilungen der Kaiserlich-königlichen Geographischen Gesellschaft. Band I. Heft I. Redigirt von Franz Foetterle. Wien, 1857. 8vo.
- Gesehäfts-Ordnung der Kaiserlich-königlichen Geographischen Gesellschaft. pp. 6. 8vo.
- Verzeiehniss der Gesammt-Versammlungen der K. K. Geographischen Gesellsehaft. Wien, 1856. 8vo. pp. 9.
- Die Geographische Gesellschaft in Wien. Jan. 5, Feb. 4,
  März 1, April 5, Mai 6, Sep. 11, Nov. 4, Dec. 2, 16, 30,
  1856; Jan. 20, Feb. 17, 1857. fol.
- Bericht über die Durchstechung der Landenge von Suez an die K. K. Geographische Gesellschaft, von der hierzu gewählten Commission bestehend aus den Herren V. Freiherrn v. Andrian, K. Freiherrn v. Czörnig, etc. Berichterstatter Franz Foetterle. Jahrg. I, II. Wien, 1857. Svo.

#### K. K. Handels-Ministerium.

- Mittheilungen über Handel, Gewerbe und Verkehrsmittel, so wie aus dem Gebiete der Statistik überhaupt, nach Berichten an des K. K. Handels-Ministerium. Herausgegeben von der Direction der administrativen Statistik. I, II. Wien, 1850, 1851. 8vo.
- Mittheilungen aus dem Gebiete der Statistik. Herausgegeben von der *Direction der administrativen Statistik* im K. K. Handels-Ministerium. I, I. Wien, 1852. 8vo.

#### K. K. Landwirthschafts-Gesellschaft.

Verhandlungen der Kais, kön. Landwirthschafts-Gesellschaft in Wien. Dritter Folge. V. I. Wien, 1855. 4to.

Allgemeine Land- und Forstwirthschaftliche Zeitung. Herausgegeben von der K. K. Landwirthschafts-Gesellschaft in Wien. Redigirt von Prof. Dr. Joseph Arenstein. Jahrg. VII, Nos. 4 & 5. Wien, 1857. royal 8vo.

#### K. K. Orientalische Akademie.

Zur ersten Saculär-Feier der K. K. Akademie der orientalischen Sprachen im Jänner, 1854. Wien, 1854. 8vo.

#### K. K. Sternwarte.

Annalen der K. K. Sternwarte in Wien. Nach dem Befehle seiner K. K. apost. Majestät auf öffentliche Kosten herausgegeben von Carl von Littrow. Dritter Folge Bde I—VI. Wien, 1851—1856. 8vo.

Meteorologische Beobachtungen an der Wiener Sternwarte in den Jahren 1851, 1852, 1853, 1854, 1855. 4to.

# Zoologisch-botanischer Verein.

Verhandlungen des Zoologisch-botanischen Vereins in Wien. I-VI. Wien, 1851-1856. 8vo.

Separatabdruck naturwissenschaftlicher Abhandlungen aus den Schriften des Zoologisch-botanischen Vereins in Wien. Wien, 1856. 8vo.

Bericht uber die österreichische Literatur der Zoologie, Botanik und Palaeontologie, aus den Jahren 1850, 1851, 1852, 1853. Wien, 1855. 8vo.

#### Miscellanea.

Naturwissenschaftliche Abhandlungen, gesammelt und durch Subscription herausgegeben von Wilhelm Haidinger. Bde I—IV. Wien, 1847—1851. 4to.

Berichte über die Mittheilungen von Freunden der Naturwissenschaften in Wien; gesammelt und herausgegeben von Wilhelm Haidinger. I—VII, 1846—1850. Wien, 1847—1851. Svo.

Wiener entomologische Monatschrift. Bd. I, No. I, Juli 1857. 8vo.

#### WIESBADEN.

#### Verein fur Naturkunde.

Jahrbücher des Vereins für Naturkunde im Herzogthum Nassau. Hefte I—XI. Wiesbaden, 1844-56. 8vo.

Medicinische Jahrbücher für das Herzogthum Nassau. Hefte I—XIII. Wiesbaden, 1843-54. 8vo.

### WÜRZBURG.

# Physikalisch-medicinische Gesellschaft.

Verhandlungen der Physikalisch-medicinischen Gesellschaft in Würzburg. I—VIII. Erlangen und Würzburg, 1850 –58. 8vo.

Statuten der Physikalisch-medicinischen Gesellschaft in Würzburg. Würzburg, 1852. 8vo. pp. 15.

Berichte von der Königlichen zootomischen Anstalt zu Würzburg. Zweiter Bericht für das Schuljahr 1847-48. Leipzig, 1849. 4to.

# Polytechnischer Verein.

Gemeinnützige Wochenschrift. Organ für die Interessen der Technik, des Handels, der Landwirthschaft und der Armenpflege. Jahrg. II—VII. Würzburg, 1852—1857. 8vo.

Satzungen des Polytechnischen Vereins zu Würtzburg. Würtzburg, 1853. Svo. pp. 27.

Verzeichniss der Kupferstich-Sammlung des Polytechnischen Vereins zu Würzburg. Würzburg, 1855. 8vo.

Jahres-Bericht des Polytechnischen Vereins zu Würzburg.
Abtheilung für Schulen und wissenschaftliche Technik.
Bekannt gemacht bei der öffentlichen Vertheilung der
Schulpreise den 24 August 1856. Würzburg. 4to.

Der Polytechnische Verein zu Würzburg in den ersten fünfzig Jahren seines Bestehens. Eine Festgabe zur fünfzigjährigen Stiftungs-Feier. Nach den Akten, von M. F. CHEMNITZ. Würzburg, 1856. 4to.

# SWITZERLAND.

# Allgemeine Schweizerische Gesellschaft fur die gesammten Naturwissenschaften.

Neue Denkschriften der allgemeinen Schweizerischen Gesellschaft für die gesammten Naturwissenschaften. Bde I—XIV. (Nouveaux Mémoires de la Société helvé-

# Allgemeine Schweizerische Gesellschaft.—Cont'd. tique des Sciences Naturelles.) Neuchâtel & Zurich,

tique des Sciences Naturelles.) Neuchâtel & Zurich, 1837—1855. 4to.

Actes de la Société helvétique des Sciences Naturelles. (Verhandlungen der Schweizerischen naturforschenden Gesellschaft.) Sessions XXX—XL, 1845—1855. 8vo.

Die wichtigsten Momente aus der Geschichte der drei ersten Jahrzehende der Schweizerischen naturforschenden Gesellschaft. (Coup d'æil historique sur les 32 premières années d'existence de la Société helvétique des Sciences Naturelles.) Zürich, 1848. Svo.

Verzeichniss der Mitglieder der allgemeinen Schweizerischen Gesellschaft für die gesammten Naturwissenschaften. (Catalogne des Membres de la Société helvétique des Sciences Naturelles.) Zürich, 1852. 8vo.

#### BASEL.

#### Gesellschaft fur vaterlændische Alterthumer.

Mittheilungen der Gesellschaft für vaterländische Alterthümer in Basel. I, II, V—VII. Basel, 1843—1857. 4to.

Antiquarische Mittheilungen aus Basel. Die Grabhügel in der Hardt eröffnet und beschrieben von Prof. W. Vischer. Zürich, 1842. 4to. pp. 16 and 3 plates.

Beiträge zur vaterländischen Geschichte. Herausgegeben von der *Historischen Gesellschaft* zu Basel. Bde III, IV. *Basel*, 1846, 1854. 8vo.

#### Museum.

Festschrift zur Einweihung des Museums in Basel, am 26 November 1849. Basel. 4to.

### Naturforschende Gesellschaft.

Bericht über die Verhandlungen der Naturforschenden Gesellschaft in Basel vom August 1834 bis Juni 1848. I—X. Basel, 1835—1852. 8vo.

Verhandlungen der Naturforschenden Gesellschaft in Basel. Hefte I—IV. Basel, 1854-57. 8vo.

#### BERN.

#### Naturforschende Gesellschaft.

Mittheilungen der Naturforschenden Gesellschaft in Bern aus den Jahren 1843—1855. Bern, 1843—1855. 8vo.

#### GENEVE (GENEVA).

#### Observatoire.

Observations Astronomiques faites à l'Observatoire de Genève dans les Années 1841—1850. Par E. Plantamour. I—X. Genève. 4to.

Résumé des Observations Thermométriques et Barométriques faites à l'Observatoire de Genève et au Grand St.-Bernard pendant les dix années 1841 à 1850, suivi de Tables Hypsométriques calculées d'après la formule de Bessel par E. Plantamour. Genève, 1851. 4to.

# Societe de Physique et d'Histoire Naturelle de Geneve.

Mémoires de la Société de Physique et d'Histoire Naturelle de Genève. I—XIV. Genève & Paris, 1821—1855. 4to.

#### Miscellanea.

Supplément à la Bibliothèque Universelle de Genève.—
Archives des Seiences Physiques et Naturelles. Tomes
I—XXIX. Genève et Paris, 1846—1855. Svo.

#### LAUSANNE.

### Societe Vaudoise des Sciences Naturelles.

Bulletin de la Société Vaudoise des Sciences Naturelles. IV; V, Nos. 38-41. Lausanne, 1854-1857. 8vo.

#### NEUCHATEL.

#### Societe des Sciences Naturelles.

Mémoires de la Société des Sciences Naturelles de Neuchâtel. Tomes I—III. Neuchâtel, 1836—1846. 4to. Bulletin de la Société des Sciences Naturelles de Neuchâtel. I; II; III, pp. 95—182; IV, r. Neuchâtel, 1844—1856. 8vo.

#### ZURICH.

# Ecole Polytechnique Federale.

Ecole Polytechnique Suisse. Rapports, &c. 1854-56. 8vo.

# Gesellschaft fur vaterlændische Alterthumer in Zurich.

Erster Bericht über die Verrichtungen der Antiquarischen Gesellschaft in Zürich vom 1 Juli 1844 bis 1 Juli 1845. Zürich. 4to.

Zweiter Bericht, vom 1 Juli 1845 bis 1 Juli 1846.

23 11 01001	Dellen,	10111	9 an 1040	DIG I GUI	1 1010.
Dritter	4.6	"	1846	"	1847.
Vierter	"	"	1847	"	1848.
Fünfter	"	"	1848	"	1849.
Sechster	. "	"	1849	"	1850.
Siebente	er "	"	1850	"	1851.
Achter	6 6	"	1851	"	1852.
Neunter		4 6	1852	"	1853.
Zehnter	4.6	46	1853	"	1854.
Elfter	4.6	44	1854	"	1855.
Zwölfter	. "	"	1855	"	1856.

Katalog der Bibliothek der Antiquarischen Gesellschaft in Zürich, 1855. 8vo.

Mittheilungen der Antiquarischen Gesellschaft in Zürich. Bde III, v, V—X, XI, I—IV, VI. Zürich, 1849—1857. 4to.

Die Stædte- und Landes-Siegel der Schweiz. Ein Beitrag zur Siegelkunde des Mittelalters von E. Schulthes. Fortgesetzt von Dr. Ferdinand Keller. Hefte IV, V. Zürich, 1856. 4to.

#### Naturforschende Gesellschaft.

Abhandlungen der Naturforschenden Gesellschaft in Zürich. I—III. Zürich, 1761—1766. 8vo.

Vierteljahrsschrift der Naturforschenden Gesellschaft in Zürich. Redigirt von Dr. Rudolf Wolf. Jahrg. I, II. Zürich, 1856, 1857. 8vo.

Meteorologische Beobachtungen angestellt auf Veranstaltung der Naturforschenden Gesellschaft in Zürich. Zürich, 1837—1846. 4to.

#### ZURICH.

## Naturforschende Gesellschaft.—Continued.

Denkschrift zur Feier des hundertjährigen Stiftungsfestes der Naturforschenden Gesellschaft in Zürich am 30 November, 1846. Zürich. 4to.

Mittheilungen der Naturforschenden Gesellschaft in Zürich. I—X. Zürich, 1847—1856. 8vo.

### BELGIUM.

### ANVERS (ANTWERP).

#### Societe de Pharmacie.

Journal de Pharmacie publié par la Société de Pharmacie d'Anvers. Tomes X, XI. Anvers, 1854, 1855. 8vo.

## BRUXELLES (BRUSSELS).

# Academie Royale des Sciences, des Lettres et des Beaux-Arts.

Nouveaux Mémoires de l'Académie royale des Sciences et Belles-Lettres de Bruxèlles. Tomes XII—XIX. Bruxelles, 1839—1845. 4to.

Mémoires de l'Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique. XX—XXX. Bruxelles, 1847—1857. 4to.

Mémoires couronnés et Mémoires des Savants étrangers, publiés par l'Académie royale des Sciences et Belles-Lettres de Bruxelles. Tomes XII—XVIII. Bruxelles, 1837—1845. 4to.

Idem, publiés par l'Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique. XIX—XXVIII. Bruxelles, 1847—1856. 4to.

Mémoires couronnés et Mémoires des Savants étrangers, publiés par l'Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique. Collection in 8vo. Tomes I—VI. Bruxelles, 1840—1855. 8vo.

(Wanting Vol. III, Part 2; Vol. IV; Vol. V, Part 2, after p. 96.)

#### BRUXELLES.

# Academie Royale des Sciences, des Lettres et des Beaux-Arts.—Continued.

Rapport décennal des Travaux de l'Académie royale des Sciences et Belles-Lettres de Bruxelles depuis 1830; par M. A. QUETELET. (Lu à la séance publique du 16 déc. 1840.) Bruxelles. Svo.

Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique. Arrêtés royaux concernant sa réorganisation. Bruxelles, 1845. 8vo.

Bulletins de l'Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique. XII—XXIII, 1845—1856. Bruxelles. 8vo.

Annexe aux Bulletins de l'Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique. 1853-54. Bruxelles, 1854. 8vo.

Annuaire de l'Académie royale des Sciences et Belles-Lettres de Bruxelles. Années V—VIII, 1839-42; X, 1844; XI, 1845. Bruxelles. 24mo.

Annuaire de l'Académic royale des Sciences, des Lettres et des Beaux-Arts de Belgique. Années XIII—XIX, XXI—XXIII. Bruxelles, 1847—1857. 8vo.

# Observatoire Royal.

Annales de l'Observatoire royal de Bruxelles, publiées aux frais de l'Etat, par le Directeur A. QUETELET. IV—IX, XI. Bruxelles, 1845—1857. 4to.

Annuaire de l'Observatoire royal par le Directeur A. Que-TELET. 1848, 1854, 1856, 1857. Bruxelles. 24mo.

Almanach Séculaire de l'Observatoire royal de Bruxelles par le Directeur A. QUETELET. Bruxelles, 1854. 12mo.

Rapport adressé à M. le Ministre de l'Intérieur sur l'état et les Travaux de l'Observatoire Royal, pendant les années 1847, 1848, 1849, 1856; par le Directeur A. QUETELET. Bruxelles. 8vo.

# Societe des Gens de Lettres Belges.

Société des Gens de Lettres Belges. Deuxième anniversaire de la fondation de la Société. Séance publique du 11

#### BRUXELLES.

## Societe des Gens de Lettres Belges.—Continued.

novembre 1849. Compte rendu. Bruxelles, 1849. 8vo. (From Baron Jules de St. Genois.)

## GAND (GHENT).

#### Universite de Gand.

Annales Academiæ Gandavensis. MDCCCXXVII— MDCCCXXVIII. Gandavi, 1831. 4to.

Annales des Universités de Belgiques, ou Recueil contenant les lois, arretés et réglements relatifs à l'enseignement supérieur, les mémoires couronnés aux concours universitaires, et d'autres documents académiques. Année II—IX, 1843—1850. Bruxelles, 1844—1852. 8vo.

Kunst- en Letter-blad uitgegeven door F. A. SNELLAERT. Jaerg. I—IV. Gent, 1840—1843. 4to.

#### Miscellanea.

Annales de Littérature médicale étrangère. Rédigées par J. F. Kluyskens. I — XVIII, 1805—1814. Gand. Svo.

#### LIEGE.

# Societe Royale des Sciences de Liege.

Mémoires de la Société royale des Sciences de Liège. I—XII. Liège, 1843—1857. 8vo. (Wanting IX.)

### LOUVAIN.

# Universite Catholique.

Annales Academiæ Lovaniensis anni noni a die XVIII Octobris MDCCCXXV ad diem II Oct. MDCCCXXVI. Rectore Magnifico Francisco Josepho Dumbeck atque Academiæ Graphiario Gerardo Joanne Meyer. IX, I, II. Lovanii, 1837. 4to.

Annuaire de l'Université Catholique de Louvain. Années IV, VIII—XII, XV, XVI, XVIII. Louvain, 1840—1854. 12mo.

### LOUVAIN.

### Universite Catholique.—Continued.

Société Littéraire de l'Université Catholique de Louvain Choix de Mémoires. Tomes I—V. Louvain, 1841— 1850. Svo.

### MONS.

# Societe des Sciences, des Arts et des Lettres du Hainaut.

Mémoires et Publications de la Société des Sciences, des Arts et des Lettres du Hainaut. Tomes III—X, 1842 —1852. IIe Série.—Tomes I, 1852—1853; III, 1854 —55. Mons, 1842—1856. 8vo.

#### FRANCE.

## Congres Scientifique de France.

Congrès Scientifique de France. Cinquième Session, tenue à Metz, en septembre 1837. *Metz*, 1838. Svo.

Dixième Session, à Strasbourg, 1842. Tomes I & II. Strasbourg, 1843.

Documents extraits du Compte-rendu de la dixième Session du Congrès Scientifique. Strasbourg, 1844. 8vo.

Congrès des Délégués des Sociétés Savantes des Départements, tenu au Luxembourg, dans l'ancienne Chambre des Pairs. Séance du 15 mars 1850. Présidence de M. Thevenot. *Cuen*, 1850. 8vo.

#### Institut des Provinces de France.

Annuaire de l'Institut des Provinces et des Congrès Scientifiques.—1851. Paris. 12mo.

### AMIENS.

# Societe des Antiquaires de Picardie.

Mémoires de la Société des Antiquaires de Picardie. Doeuments inédits concernant la province. I, 1845; II, 1853;
IV, 1855. Amiens. 4to.

93

#### AMIENS.

## Societe des Antiquaires de Picardie.—Continued.

Mémoires de la Société des Antiquaires de Picardie. Deuxième série. Tomes I—III. Amiens et Paris, 1851 —1854. 8vo.

Table générale des matières contenues dans les dix premiers volumes des Mémoires de la Société des Antiquaires de Picardie. Amiens, 1850. 8vo.

Bulletin de la Société des Antiquaires de Picardie. 1853, 1—IV; 1854, 1—IV; 1855, 1—III. Amiens. 8vo.

Annuaire administratif et historique de la Somme, pour les années 1852 et 1853, publié sous les auspices du conseil général du Départment, par la Société des Antiquaires de Picardie. Amiens, 1852. 8vo.

Histoire général de la province de Picardie. Livr. II, 1853. Amiens. 4to.

Séance publique du 29 juin 1854, et Inauguration de la Statue de Pierre l'Ermite à Amiens. Amiens, 1854. 8vo.

Délibération du 23 décembre 1852, concernant les travaux de la Cathédrale d'Amiens. Amiens, 1853. 8vo.

#### ANGOULEME.

# Societe d'Agriculture, Arts et Commerce du Departement de la Charente.

Annales de la Société d'Agriculture, Arts et Commerce du Département de la Charente. XXXIV, 1 & 11, 1852. Angoulême. 8vo.

#### ARCUEIL.

#### Societe d'Arcueil.

Mémoires de Physique et de Chimie, de la Société d'Arcueil. Tomes I, II. *Paris*, 1807, 1808. 8vo. (*Purchased*.)

#### BEZIERS.

# Societe Archeologique.

Bulletin de la Société Archéologique de Beziers. Tomes I—VI, XIII. Beziers, 1837—1844, 1852. 8vo. Supplément à la huitième Livraison du Bulletin. Essai sur

#### BEZIERS.

## Societe Archeologique.—Continued.

la Formation et sur le Développement du Langage des Hommes. Par M. I. Azais. 8vo.

#### BORDEAUX.

# Academie des Sciences, Belles-Lettres et Arts de Bordeaux.

Recueil des Actes de l'Académie des Sciences, Belles-Lettres et Arts de Bordeaux. XIII, 1851; XIV, 1852; XVI, 1854; XVII, III, IV, 1855; XVIII, II, III, IV, 1856. Bordeaux. 8vo.

Rapport lu à l'Académie des Sciences, Belles-Lettres et Arts de Bordeaux, dans sa Séance du 26 avril 1855, par M. Ch. Des Moulins. Bordeaux, 1855. 8vo.

# Societe des Sciences Physiques et Naturelles de Bordeaux.

Mémoires de la Société des Sciences Physiques et Naturelles de Bordeaux. I, I, II. Paris et Bordeaux, 1854, 1855. 8vo.

#### Societe Linneenne de Bordeaux.

Bulletin d'Histoire Naturelle de la Société Linnéenne de Bordeaux. Deuxième édition. I (1826), 1830; II, 1845. Bordeaux. 8vo.

Actes de la Société Linnéenne de Bordeaux. V—XIX, 1832—1853. Paris et Bordeaux. 8vo.

Analyse des Travaux de la Société Linnéenne de Bordeaux, pendant les années 1832—1835. Par M. J. L. LAPORTE. Bordeaux. 8vo.

Séance publique d'hiver de la Société Linnéenne de Bordeaux (4 novembre 1853). Discours d'ouverture, par M. Cu. Des Moulins, Président. Bordeaux. 8vo. Idem (6 novembre 1855).

Une Visite au Berger des Eaux-Bonnes (Pierre Sacaze-Gaston). Discours prononcé à l'Ouverture de la Séance publique d'hiver de la Société Linnéenne de Bordeaux,

#### BORDEAUX.

#### Societe Linneenne de Bordeaux - Continued.

le 4 novembre 1852, par M. Charles des Moulins. Bordeaux, 1852. 8vo.

Le Nouveaux Jardin des Plantes. Discours prononcé dans la Séance publique d'hiver de la Société Linnéenne de Bordeaux, le 4 novembre 1853, par M. Durien de Maisonneuve. Bordeaux, 1853. 8vo.

#### CAEN.

## Academie Royale des Sciences, Arts et Belles-Lettres.

Mémoires de l'Académie royale des Sciences, Arts et Belles-Lettres de Caen. 1847, 1849, 1851, 1852, 1855, 1856. Caen. 8vo.

Bulletin de l'Instruction publique et des Sociétés savantes de l'Académie de Caen. Première année, I & II, 1840–41; Deuxième année, I & II, 1841–42; Troisième année, I & II, 1842–43. Caen. 8vo.

Séance publique du 24 novembre 1853. Discours d'ouverture prononcé par M. A. Charma. Paris, 1853. 8vo.

# Societe d'Agriculture et de Commerce de Caen.

Précis des travaux de la Société royale d'Agriculture et de Commerce de Caen. I, 1801—1810; II, 1827; IV, 1836. Caen. Svo.

Sociéte Royale d'Agriculture et de Commerce de Caen. Rapports, &c. 1818-34, 1834-38, 1839-44, 1845-50. Caen. 8vo.

# Societe des Antiquaires de Normandie.

Mémoires de la Société des Antiquaires de Normandie. IIc Série.—II, 1841; IV, 1844; VI, 1852; VII, 1847; VIII, 1851; IX, 1851; X, 1853. IIIc Série.—I, 1855; II, 1856. Paris. 4to.

Discours prononcé par M. Guizot à la Séance solennelle de la Société des Antiquaires de Normandie, le lundi 27 août 1838. Caen. 8vo.

[Prize Announcement.] Caen, 1851. 8vo. pp. 2.

#### CAEN.

## Societe de Medecine.

Séance extraordinaire de la Société de Médecine de Caen, tenue le 10 juin 1853. Caen. Svo.

### Societe Linneenne de Normandie.

Mémoires de la Société Linnéenne de Normandie. V—X. Paris, 1835—1855. 4to.

Mémoires de la Société Linnéenne du Calvados. 1824 et 1825. Caen. 8vo.

#### CHERBOURG.

## Societe Academique.

Mémoires de la Société Académique de Cherbourg. 1852. Cherbourg. 8vo.

#### Societe des Sciences Naturelles.

Mémoires de la Société des Science Naturelles de Cherbourg. I, I, 1852; II, 1854; III, 1855; IV, 1856. Cherbourg. 8vo.

### CLERMONT-FERRAND.

# Academie des Sciences, Belles-Lettres et Arts.

Annales Scientifiques, Littéraires et Industrielles de l'Auvergne. XXVIII, XXIX. Clermont-Ferrand, 1855, 1856. Svo.

#### DIJON.

# Academie des Sciences, Arts et Belles-Lettres.

Mémoires de l'Académie de Dijon. I, 1769; II, 1774. Dijon. 8vo.

Analyse des Travaux de l'Académie, pendant le cours de l'an 12. Dijon, 1805. Svo.

Séance publique de l'Académie des Sciences, Arts et Belles-Lettres de Dijon, tenue le 22 août 1810. *Dijon*, 1810. 8vo.

97

#### DIJON.

## Academie des Sciences, Arts et Belles-Lettres.— Continued.

Idem,	séance tenue le	4	juillet	1818.	
"	"	22	avril	1819.	
"	"	24	août	1821.	
"	"	23	4.6	1823.	
"	"	20	"	1825.	
"	"	17 6	lécembre	1827.	
"	"	25	août	1829.	
"	"	26	"	1836.	
"	"	31	juillet	1841.	
"	"	21	août	1843.	

Mémoires de l'Académie des Sciences, Arts et Belles-Lettres de Dijon. Années 1830—1850. Dijon. 8vo.

Mémoires de l'Académie des Sciences, Arts et Belles-Lettres de Dijon. Deuxième série. Tomes I—V, 1851—1856. Dijon, 1852—1857. Svo.

Description d'un nouveau genre D'Edenté Fossile renfermant plusieurs espèces voisines du Glyptodon. Atlas. Par L. Nodot. Dijon. 4to.

#### EVREUX.

# Societe libre d'Agriculture, Sciences, Arts et Belles-Lettres de l'Eure.

Recueil des Travaux de la Société libre d'Agriculture, Sciences, Arts et Belles-Lettres de l'Eure. IIIe série. Tome II, 1852—1853. Evreux, 1854. 8vo.

#### LILLE.

# Societe des Sciences, de l'Agriculture et des Arts de Lille.

Mémoires de la Société royale des Sciences, de l'Agriculture et des Arts de Lille. 1847, 1850—1853. *Lille*. 8vo. Mémoires de la Société Impériale des Sciences, de l'Agri-

culture et des Arts de Lille. Supplément à l'année 1853 et Table générale de la Ire série. Lille, 1856. Svo.

### LYON (LYONS).

# Academie des Sciences, Belles-Lettres et Arts de Lyon.

Compte-rendu des Travaux de l'Académic royale des Sciences, Belles-Lettres et Arts de Lyon. 1824—1826, 1835, 1837, 1839, 1841. Lyon. 8vo.

Mémoires de l'Académie des Sciences, Belles-Lettres et Arts de Lyon. Classe des Sciences.—II, 1847. Classe des Lettres.—I, II, 1845, 1846. Lyon. Svo.

Mémoires de l'Académie nationale des Sciences, Belles-Lettres et Arts de Lyon. Nouvelle série. Classe des Sciences.—I, 1851. Classe des Lettres.—I, 1851. Lyon. Svo.

# Societe d'Agriculture, Histoire Naturelle et Arts utiles de Lyon.

Compte-rendu des Travaux de la Société d'Agriculture, Histoire Naturelle et Arts utiles de Lyon. 1812-1813, 1814, 1814-1815, 1817, 1819-1820, 1821, 1822-1823, 1823-1824. Lyon, 1813-1824. 8vo.

Mémoires de la Société d'Agriculture, Histoire Naturelle et Arts utiles de Lyon. 1825-1827, 1828-1831, 1832, 1833-1834, 1835-1836. Lyon, 1828-1837. 8vo.

Annales des Sciences Physiques et Naturelles, d'Agriculture et d'Industrie, publiées par la *Société royale d'Agriculture*, &c. de Lyon. I—XI, 1838—1848. Deuxième série. I—III, 1849—1851. *Lyon* et *Paris*. 8vo.

(Wanting: livr. 1, 2, 3 of Vol. II; livr. 1—5 of Vol. III; livr. 1—4 of Vol. IV; livr. 2—5 of Vol. V; and liv. 1, 3, 4 of Vol. VI.)

Notice sur les Travaux de la Société royale d'Agriculture, Histoire Naturelle et Arts utiles de Lyon, pendant le cours de l'année 1832, lu dans la séance publique du 3 septembre même année, par L. F. Grognier. Lyon, 1832. 8vo.

Rapport à la Société royale d'Agriculture, Histoire Naturelle et Arts utiles de Lyon, sur l'Essai comparatif des différentes Charrues, fait par ordre de la Chambre royale d'Agriculture de Savoie, par C. Gariot. Imprimé par

99

#### LYON.

# Societe d'Agriculture, Histoire Naturelle et Arts utiles de Lyon.—Continued.

ordre de la Société d'Agriculture de Lyon. Lyon, 1831. 8vo.

Rapport fait à la Société royale d'Agriculture, Histoire Naturelle et Arts utiles de Lyon, au nom de la commission chargée de proposer des sujets de Prix pour être décernés en 1833 et 1837, lu dans la séance du 5 août 1832. Commissaires: MM. Gensoul, Buisson, Jurie, et Bottex, rapporteur. Imprimé par ordre de la Société. Lyon, 1833. 8vo.

Rapport fait à la Société royale d'Agriculture, Histoire Naturelle et Arts utiles de Lyon, sur la Fête agricole du Comice de Meyzieu (Isère), tenue le 27 mai 1834; par Charles Gariot. Imprimé par ordre de la Société. Lyon, 1834. Svo.

Société royale d'Agriculture, Histoire Naturelle et Arts utiles de Lyon. Séance publique, tenue le 23 juillet 1835. Lyon, 1835. Svo.

# Societe Linneenne de Lyon.

Société Linnéenne de Lyon. Compte-rendu des Travaux des années 1839—1842, 1844. Lyon. 8vo.

Annales de la Société Linnéenne de Lyon. Années 1847–1849, 1850–1852. *Lyon*, 1850, 1852. 8vo.

#### LE MANS.

# Societe d'Agriculture, Sciences et Arts de la Sarthe.

Analyse des Travaux de la Société royale des Arts du Mans, depuis l'époque de son institution, en 1794, jusqu'à la fin de 1819. Première Partie. Sciences Mathématiques et Physiques. Par A. P. Ledru. Au Mans, 1820. Svo.

Bulletin de la Société royale d'Agrienture, Sciences et Arts du Mans. Tomes III, IV, 1838—1841. *Le Mans*, 1840, 1843. Svo.

Bulletin de la Société d'Agriculture, Sciences et Arts de la Sarthe. V—VIII, 1842—1849. IIe série. I—IV, 1850—1856. Le Mans, 1844—1856. 8vo.

#### LE MANS.

# Societe d'Agriculture, Sciences et Arts de la Sarthe.—Continued.

Mémoires de la Société d'Agriculture, Sciences et Arts de la Sarthe. I, 1, 1855. Le Mans. Svo.

## MARSEILLE (MARSEILLES).

## Academie des Sciences, Lettres et Arts de Marseille.

Histoire de l'Académie de Marseille, depuis sa fondation en 1726 jusqu' en 1826; par Mr. J. B. Lautard. I—III, Marseille, 1826—1843. 8vo.

Lettres archéologiques sur Marseille, par M. J. B. Lau-TARD. Seconde édition. *Marseille*, 1844. 8vo.

#### MENDE.

# Societe d'Agriculture, Industrie, Sciences, et Arts, du Departemente de la Lozere.

Mémoires et Analyse des Travaux de la Société d'Agriculture, Commerce, Sciences et Arts de la ville de Mende, chef-lieu du departement de la Lozère. 1827, 1828, 1829, 1830, 1831, 1832-33, 1833-34, 1834-35, 1835-36, 1837-38, 1839-40, 1841-42, 1843-44, 1845-46, 1847, 1848, 1849. Mende. 8vo.

Bulletin de la Société d'Agriculture, Industrie, Sciences et Arts du département de la Lozère. Tomes I—VIII, 1850—1857. *Mende*. 8vo.

(Wanting IV, from page 132; VI, from page 59.)

#### METZ.

# Academie Imperiale de Metz.

Mémoires de l'Académie Impériale de Metz. (Société des Lettres, Sciences et Arts de Metz.) Années I—XXXV, XXXVII, XXXVIII, 1819—1857. Metz et Paris, 1821—1856. 8vo.

#### METZ.

# Societe d'Histoire Naturelle du Departement de la Moselle.

Bulletin de la Société d'Histoire Naturelle du département de la Moselle. Cali. I.—VIII, 1843—1857. *Metz.* 8vo.

#### MONTPELLIER.

#### Academie des Sciences et Lettres.

Académie des Sciences et Lettres de Montpellier. Séance publique de l'année 1847.

Académie des Sciences et Lettres de Montpellier. Mémoires de la section des Lettres: Tomes I, 1847—1854; II, 1855—1857. Mémoires de la section des Sciences: I, 1847—1850; II, 1851–54; III, 1855–57. Mémoires de la section de Médecine: I, 1849—1853; II, 1857. Montpellier. 4to.

(Wanting, Section des Lettres: Tome I, pp. 119—552.) Académie des Sciences et Lettres de Montpellier. Rapport lu dans la séance de l'Académie du 25 janvier 1858 au nom de la Section des Lettres, par M. Victor de Bonald, sur un Projet d'Association de l'Institut et des Académies de Province. Présenté à l'Académie de Lyon, par M. Bouillier. Montpellier, 1858. 4to. pp. 15.

# Societe Archeologique.

Mémoires de la Société Archéologique de Montpellier. I, 1840; II, 1850; III, 1850—1854; IV, pp. 1—144. Montpellier. 4to.

Thalamus Parvus. Le Petit Thalamus de Montpellier, publié pour la première fois d'après les manuscrits originaux par la Société Archéologique de Montpellier, 1840. Montpellier. 4to.

Publications de la Société Archéologique de Montpellier.
 Documents historiques. No. 6. Les Coutumes de Perpignan. Montpellier, 1848. 4to.

### NIMES.

#### Academie du Gard.

Mémoires de l'Académie du Gard. 1835—1857. Nîmes. 8vo. (12 vols.)

Compte-rendu des Travaux de l'Académie du Gard, en séance publique du Conseil Général et du Conseil Municipal le 25 août 1854. Par M. NICOT. Nimes. 8vo.

Réglement de l'Académie du Gard. Nîmes. 8vo.

#### ORLEANS.

## Societe des Sciences, Belles-Lettres et Arts d'Orleans.

Mémoires de la Société royale des Sciences, Belles-Lettres et Arts d'Orléans. I—IX, 1837—1849. Orléans. 8vo.

#### PARIS.

# Academie Nationale Agricole, Manufacturiere et Commerciale.

Journal Mensuel des Travaux de l'Académie nationale Agricole, Manufacturière et Commerciale, fondée en 1830; et de la Société française de Statistique Universelle. Années XXI—XXVII, 1851—1857. Paris. 8vo. (Wanting 1851, January—July; 1852, November; 1853, June; 1854, August; 1855, May and June; 1857, August—October.)

# Cercle generale d'Horticulture.

Bulletin des Travaux de la Société, et Journal des Améliorations pratiques en matière de Jardinage. Tomes II. II. III. V. VI, III. II—VI, IV, V. Paris, 1844—1847. 8vo. [For continuation, see under Société d'Horticulture de la Seine, p. 108.]

#### Ecole des Chartes.

Bibliothèque de l'Ecole des Chartes. Revue d'érudition consacrée spécialement à l'étude du Moyen Age. Tome III. Quatrième série. *Paris*, 1857. 8vo.

Livret de l'Ecole des Chartes, publié par la Société de l'Ecole des Chartes. *Paris*, 1852. 16mo.

#### Ecole des Mines.

Annales des Mines, ou recueil de Mémoires sur l'Exploitation des Mines et sur les sciences et les arts qui s'y rapportent; redigées par les Ingénieurs des Mines, et publiées sous l'autorisation du Ministre des Travaux Publics. Quatrième série.—Tomes IX—XX, 1846—1851. Cinquième série.—Mémoires: I—VII, IX, pp. 233—700, X—XII, 1852—1857. Partie administrative: I—III, IV, pp. 1—186, V, pp. 39—294, VI, 1852—1857. Paris. 8vo. (Wanting: Livr. 4—6 of 1855, and 1 of 1856.)

Table Alphabétique et Analytique des matières contenues

Table Alphabétique et Analytique des matières contenues dans la 4e série des Annales des Mines. *Paris*, 1852. 8vo.

# Institut de France: Academie des Inscriptions et Belles-Lettres.

Histoire de l'Académic royale des Inscriptions et Belles-Lettres, avec les Mémoires de Litérature tirés des régistres de cette Académie. Tomes I—L, 1666—1793. Paris, 1736—1808. 4to.

Tableau général raisonné et méthodique des ouvrages contenus dans le Recueil des Mémoires de l'Académie royale des Inscriptions et Belles-Lettres, depuis sa naissance jusques et compris l'année 1788, servant de Supplément aux Tables de ce Recueil. Paris, 1791. 4to.

### Institut de France: Academie des Sciences.

Regiæ Scientiarum Academiæ Historia, in qua præter ipsius Academiæ Originem et Progressus, variasque Dissertationes et Observationes per triginta quatuor annos factas, quàm plurima Experimenta et Inventa, cùm Physica tùm Mathematica, in certum ordinem digeruntur. Secunda editio priori longe auctior. Autore Joanne-Baptista du Hamel, ejusdem Academiæ socio. Parisiis, 1701. 4to.

Histoire (et Mémoires) de l'Académie royale des Sciences. 1666—1790. Paris, 1733—1797. 4to. (107 vols.)

Table alphabétique des Matières contenues dans l'Histoire et les Mémoires de l'Académie royale des Sciences, publiée

- Institut de France: Academie des Sciences.—Cont'd.
  par son ordre, et dressée par M. Godin, de la même Académie. I—IV, 1666—1730. Paris, 1729—1734. 4to.
  - Table générale des Matières, &c. Par M. Demours. V—X, 1731—1790. *Paris*, 1747—1809. 4to.
  - Nouvelle Table des Articles contenus dans les volumes de l'Académie royale des Sciences de Paris, dans ceux des Arts et Métiers publiés par cette Académie, et dans la Collection Académique. I—IV, 1775—1776. Paris. 4to.
  - Suites des Mémoires de l'Académie royale des Sciences. 1720—1764. Paris. 4to. (7 vols.)
  - Mémoires de l'Institut national des Sciences et Arts, Littérature et Beaux-Arts. I—V, 1798—1804. Paris. 4to.
  - Mémoires de l'Institut national des Sciences et Arts. Sciences mathématiques et physiques. I—VI, 1798—1806. Paris. 4to.
  - Mémoires de la classe des Sciences mathématiques et physiques de l'Institut de France. 1806—1815. *Paris*, 1806—1818. 4to. (8 vols.)
  - Mémoires de l'Académie royale des Sciences de l'Institut de France. I—XVI, XXI, 1816—1838, 1847. Paris, 1818—1838, 1847. 4to.
  - Mémoires de Mathématique et de Physique, présentés à l'Académie royale des Sciences, par divers Sçavans, et lûs dans ses Assemblées. Tomes I—XI, 1750—1786. Paris. 4to.
  - Mémoires preséntés à l'Institut des Seiences, Lettres et Arts, par divers Savans, et lus dans ses Assemblées. Seiences mathématiques et physiques. I, II, 1806, 1811. Paris. 4to.
  - Mémoires présentés par divers savans à l'Académie royale des Sciences de l'Institut de France et imprimés par son ordre. Sciences mathématiques et physiques. I—VI, XIII, 1827—1835, 1852. Paris. 4to.
  - Machines et Inventions approuvées par l'Académie royale des Sciences. I—VII, 1666—1754. Paris, 1735—1777. 4to.

## Institut de France: Academie des Sciences.—Cont'd.

- Recueil des Pièces qui ont remporté les prix de l'Académie royale des Sciences. I—IX, 1720—1772. Paris, 1721—1777. 4to.
- Jugement de l'Académie royale des Sciences et Belles-Lettres sur une Lettre prétendue de Leibnitz. *Paris*. 4to.
- Rapports et discussions de toutes les classes de l'Institut de France, sur les Ouvrages admis au concours pour les Prix décennaux. *Paris*, 1810. 4to.
- Rapport historique sur les progrès des Sciences mathématiques depuis 1789—1808 et sur leur état actual. Redigé par M. Delambre. Paris, 1810. 4to.
- Base du Système Métrique Décimal, ou Mesure de l'Arc du méridien compris entre les parallèles de Dunkerque et Barcelone, exécutée en 1792 et années suivantes, par MM. MECHAIN et DELAMBRE. Suite des Mémoires de l'Institut. I—III. Paris, 1806—1810. 4to.

(All the preceding obtained by purchase.)

- Comptes-rendus hebdomadaires des séances de l'Académie des Sciences, publiés, conformément à une décision de l'Académie en date du 13 juillet 1835, par MM. les Secrétaires perpétuels. I—XLVI, 1835—1858. Paris. 4to.
- Institut National de France. Annuaire pour l'année 1851. Paris, 1851. 16mo.

# Institut de France: Academie des Sciences Morales et Politiques.

- Mémoires de l'Institut national des Sciences et Arts. Sciences morales et politiques. I—V. Paris, 1798—1804. 4to.
- Mémoires de l'Académie royale des Sciences morales et politiques de l'Institut de France. Deuxième série. I—VII, 1837—1850. *Paris*. 4to.
- Idem. Savans étrangers. Tomes I, II, 1841, 1847. Paris.
- Séances et Travaux de l'Académie des Sciences Morales et Politiques. He série. Tome VI (XVIe de la Collec-

# Institut de France: Academie des Sciences Morales et Politiques.—Continued.

tion), pp. 85—198, 1849. IIIe série. Tome IV (XXIVe de la Collection), pp. 1—216, 1853. *Paris*. 8vo.

## Institut Historique.

Journal de l'Institut Historique. I—XII, 1834—1840. Paris. 8vo.

L'Investigateur. Journal de l'Institut Historique. IIe série. I—X, 1841—1850. IIIe série. I—VII, 1851—1857. Paris. 8vo.

(Wanting: IIIe série. Livr. 214, 215, 220, 224, 247, 248.)

Congrès Historique Européen, réuni à Paris au nom de l'Institut Historique. Discours et Compte-rendu des Séances. 1835, I, II, 1837, 1838, 1839, 1843. Paris, 1836—1843. 8vo.

### Ministere de la Marine.

Annales Hydrographiques. Recueil d'avis, instructions, documents et mémoires relatifs à l'Hydrographie et à la Navigation, publié par le Dépôt général de la Marine. I.—VI, 1848—1851. Paris. 8vo.

# Ministere de l'Instruction Publique.

Annuaire des Sociétés savantes de la France et de l'Etranger. Publié sous les auspices du *Ministère de l'Instruction* publique. I, 1846. Paris. 8vo.

#### Museum d'Histoire Naturelle.

Archives du Muséum d'Histoire Naturelle, publiées par les professeurs-administrateurs de cet établissement. Tomes I, 1839; II, 1841; III, 1843; IV, 1844; V, 1852; VI, 1852; VII, 1853—1855; VIII, 1855–6; IX, 1856–57. Paris. 4to.

# Societe des Antiquaires de France.

Annuaire de la Société (royale, impériale) des Antiquaires de France. 1848—1851, 1853. *Paris*. 12mo.

## Societe des Antiquaires de France.—Continued.

Mémoires de la Société (royale, impériale) des Antiquaires de France. XVII—XX, 1844—1850. Paris. 8vo.

### Societe de Biologie.

Comptes-rendus des séances et Mémoires de la Sociéte de Biologie. Deuxième série. I, 1854. *Paris*, 1855. Svo. (*Purchased*.)

## Societe d'Encouragement pour l'Industrie Nationale.

Bulletin de la Société d'Encouragement pour l'Industrie Nationale. Deuxième série. Tome IV, mai et juin 1857. Paris. 4to.

## Societe Ethnologique.

Mémoires de la Société Ethnologique. Tomes I, II. Paris, 1841, 1845. 8vo.

Bulletin de la Société Ethnologique de Paris. Tome I, 1847. Paris. 8vo.

# Societe Française pour la Conservation des Monuments Historiques.

Congrès Archéologique de France. Séances générales tenues à Bourges (Cher), en octobre 1849, par la Société française pour la Conservation des Monuments historiques. *Paris*, 1850. Svo.

# Societe de Geographie.

Bulletin de la Société de Géographie. I, III—XX, 1822, 1825—1833. Deuxième série. I—XX, 1834—1843. Troisième série. I—XIV, 1844—1850. Quatrième série. I—XV, 1851—1858. Paris. 8vo.

(Wanting, Ie série: Tubles des Matières of Vol. I; Vol. II. IVe série: June No. of Vol. V; July, August, & September Nos. of Vol. VI.)

Annuaire du Bureau des Longitudes. 1830—1834, 1837 —1849, 1851. *Paris*. 12mo.

## Societe de Geographie.—Continued.

Quelques Mots sur le Danemark, la Suède et la Norvége à propos des Elémens de Géographie générale de M. Adrien Balbi; par M. DE LA ROQUETTE. *Puris*. 8vo. pp. 17.

## Societe Geologique de France.

Mémoires de la Société Géologique de France. Deuxième série. I, 1844; II, 1846; III, 1848; IV, 1851; V, I, 1854. Paris. 4to.

Bulletin de la Société Géologique de France. Deuxième série. I—XIV, 1843—1857. Paris, 1844-57. 8vo. (Wanting XIII, pp. 1—32.)

Notice Biographique sur Mercier de Boissy, par M. D'Archiac. Lue à la Société Géologique de France, dans la séance du 15 décembre 1856. Paris. 8vo.

Notice sur la Vie et les Travaux de Jules Haime, par M. D'Archiac. Lue à la Société Géologique de France, dans la séance du 15 décembre 1856. Paris. 8vo.

## Societe d'Histoire Naturelle.

Actes de la Société d'Histoire Naturelle de Paris. I, 1, 1792. Paris. fol.

#### Societe d'Horticulture de la Seine.

Bulletin des Travaux de la Société ou Journal des Améliorations pratiques en matière de Jardinage. Tomes VI—XII, 1848—1854. Paris. 8vo. [For the previous volumes, see under Cercle générale d'Horticulture, p. 102.]

# Societe Imperiale et Centrale d'Agriculture.

Séance publique tenue le dimanche 12 mai 1850, à deux heures, au Luxembourg. Présidée par M. Chevreul. Paris, 1850. 8vo.

Séance publique de rentrée tenue le mercredi 13 novembre 1850, à deux heures, au Luxembourg. Présidée par M. Dumas. Paris, 1850. Svo.

## Societe Imperiale et Centrale d'Horticulture.

Annales de la Société d'Horticulture de Paris, et Journal spécial de l'état et des progrès du Jardinage. I—X, XII—XLIV, 1827—1853. Paris. 8vo.

Séance publique de la Société Impériale d'Horticulture de Paris et Centrale de France, tenue à la suite de sa 24e Exposition, le dimanche 15 Mai 1853. Présidence de M. Payen, Président. Paris, 1853. 8vo.

Journal de la Société Impériale et Centrale d'Horticulture. I—III, 1855-57. Paris. 8vo.

Liste des Membres de la Société Impériale et Centrale d'Horticulture. 1856, 1857, 1858. Paris. 8vo.

Composition du Bureau et des Comités pour l'année 1852. Paris. 8vo.

Exposition de Mai 1853. Catalogue. Paris. 8vo.

Exposition de Septembre 1853. Catalogue. Paris. 8vo. Commission d'organisation de l'Exposition de 1857. Paris.

Exposition des Produits et Objets d'Art et d'Industrie Horticoles. 1857. Paris. Svo.

# Societe Imperiale Zoologique d'Acclimatation.

Société Zoologique d'Acclimatation. Réglement constitutif. Paris. 8vo.

Bulletin de la Société Zoologique d'Acclimatation. I, 1854; II, 1855; III, 1, 11, 1856; IV, 1857. Paris. 8vo.

Bulletin Mensuel de la Société impériale Zoologique d'Acclimatation. Allocution de M. Isidore Geoffroy-Saint-Hilaire, Président de la Société Zoologique d'Acclimatation, dans la Réunion préparatoire du 20 janvier 1854. *Paris*, 1855. 8vo.

# Societe Meteorologique de France.

Annuaire de la Société Météorologique de France. II, 1, fenilles 1—24; II, 1—22; III, 1, 1—5, 17—23, 27—29, 46—50; II, 1—21; IV, I, 1—3; II, 1—20; V, II, 1—11. 1854–57. Paris. royal 8vo.

## Societe Philomatique de Paris.

Extraits des Procès-verbaux des séances. Pendant les années 1848—1857. Paris. 8vo.

#### Verein deutscher Aerzte in Paris.

Fest-Bericht der zehnjährigen Stiftungsfeier des Vereins deutscher Aerzte in Paris. Paris. 1854.

Denkschrift zur Feier des zehnjæhrigen Stiftungsfestes des Vereins deutscher Aerzte in Paris. Paris, 1854.

#### Miscellanea.

Annales de Chimie, ou recneil de Mémoires concernant la Chimie et les arts qui en dépendent. Tomes I-XLVI, L—XCVI, 1790—1815. Paris.

Tables générales raisonnées des Matières contenues dans Vols. I-XXX, XXXI-LX, LXI-XCVI des Annales de Chimie. 3 vols. Paris, 1801, 1807, 1821. 8vo.

Annales de Chimie et de Physique. I-LXXV, 1816-1840. Troisième série: I-XIV, XV, pp. 1-28, 385 \_512, XVI\_XXXVI, L, pp. 257\_384, LI, pp. 287 \_384. 1841\_1852, 1857. Paris.

Tables générales raisonnées des Matières contenues dans les Vols, I—XXX, XXXI—LX, LXI—LXXV, des Annales de Chimie et de Physique. 3 vols. Paris, 1831. 1840, 1841. Svo.

Annales des Sciences Naturelles, comprenant la Zoologie, la Botanique, l'Anatomie et la Physiologie comparées des deux règnes, et l'Histoire des Corps organisés fossiles. Troisième série: Zoologie et Botanique. XIII—XX, 1850-1853. Quatrième série : Zoologie et Botanique. I\_IV, VII. 1854, 1855, 1857. Paris.

(Purchased.)

Annuaire des Deux Mondes. Histoire générale des divers 1851—1852, 1854—1855, 1856—1857. Paris. Etats. Svo.

Annuaire Météorologique de la France pour 1849-1852, par MM. J. HAEGHENS, CH. MARTINS et A. BERIGNY, avec des Notices Scientifiques, par MM. Abria, G.

### Miscellanea.—Continued.

AIME, &c., et des Séries Météorologiques, par MM. ABRIA, &c., 2e—4e Année. Paris, 1850—1853. roy. 8vo.

Archives générales de Médecine, Journal complémentaire des Sciences Médicales, publié par le Dr. RAIGE DE-LOUNE. IVe série. Tome XXIX, pp. 1—128. 1852. Paris. 8vo.

Archives de Physiologie, de Thérapeutique et d'Hygiène, sous la direction de M. Bouchardat. No. 1, Janvier 1854. Mémoire sur la Digitaline et la Digitale, par E. Homolle et Quevenne. *Paris*, 1854. 8vo.

(From the Editor.)

Bulletin général et universel des Annonces et des Nouvelles Scientifiques; dédié aux savants de tous les pays et à la Librairie nationale et étrangère: publié sous la direction de M. le Bon de Ferussac. I—IV, 1823. Paris. 8vo.

Bulletin des Sciences naturelles et de Géologie. Deuxième section du Bulletin universel des Sciences et de l'Industrie, publié sous la direction de M. le B<sup>en</sup> DE FERUSSAC. I—XXVII, 1824—1831. *Paris*. 8vo.

(Purchased.)

Dictionnaire raisonné universel d'Histoire Naturelle; contenant l'Histoire des Animaux, des Végétaux et des Minéraux, et celle des Corps célestes, des Météores, et des autres principaux Phénomènes de la Nature. Avec l'Histoire et la Description des Drogues simples tirées des trois règnes; et le détail de leurs usages dans la Médecine, dans l'Economie domestique et champêtre, et dans les Arts et Métiers. Par M. Valmont de Bomare. I—V. Paris, 1764. 8vo.

Dictionnaire des Sciences Naturelles, dans lequel ou traite méthodiquement des differens Etres de la Nature, considérés soit en aux-mêmes d'après l'état actuel de nos connoissances, soit rélativement à l'utilité qu'en peuvent retirer la Médecine, l'Agriculture, le Commerce et les Arts. Suivi d'une Biographie des plus célèbres Naturalistes. Par plusieurs Professeurs du Jardin du Roi, et des principales Ecoles de Paris. I—LX. Strasbourg et Paris, 1816—1830. 8vo.

### Miscellanea.—Continued.

Dictionnaire des Sciences Naturelles. Planches. Paris, 1816—1830. 8vo. (12 vols.)

Nouveau Dictionnaire d'Histoire Naturelle appliquée aux Arts, à l'Agriculture, à l'Economie rurale et domestique, à la Médecine, etc., par une Société de Naturalistes et d'Agriculteurs. Nouvelle Edition presqu' entièrement refondue et considerablement augmentée; avec des figures tirées des trois règnes de la Nature. VII—XXXVI. Paris, 1817—1819. 8vo.

Wanting I—VI.)

Dictionnaire Classique d'Histoire Naturelle. Par Messieurs Audouin, Isid. Bourdou, Ad. Brongniart, De Candolle, Daudebard de Férussae, A. Desmoulins, Drapiez, Edwards, Flourens, Geoffroy de Saint-Hilaire, A. De Jussicu, Kunth, G. De Lafosse, Lamouroux, Latreille, Lucas fils, Presle-Duplessis, C. Prévost, A. Richard, Thiébaut de Berneaud, et Bory de Saint-Vincent. Ouvrage dirigé par ce dernier collaborateur, et dans lequel on a ajouté, pour le porter au niveau de la science, un grand nombre de mots qui n'avaient pu faire partie de la plupart des Dictionnaires antérieurs. I—XVII. With Atlas. Paris, 1822—1831. 8vo.

Journal d'Agriculture Pratique. Quatrième série. Tome VIII, pp. 1-48. Paris, 1857. 8vo.

Journal des Savans. Années 1847, 1848, 1850, 1851.

Paris. 4to.

(Wanting: 1847, Jan., Feb., March; 1848, June, July, Aug., Sept., Oct., Nov., Dec.; 1850, Jan., Feb., March, April, May; 1851, Sept., Oct., Nov., Dec.)

L'Année Scientifique et Industrielle, ou Exposé annuel des Travaux scientifiques, des Inventions et des principales applications de la Science à l'Industrie et aux Arts, qui ont attiré l'attention publique en France et à l'Etranger. Par Louis Figuier. Deuxième Année. Paris, 1858. 12mo.

L'Institut, Journal universal des Sciences et des Sociétés savantes en France et à l'Etranger. Ire Section. XVII,

### Miscellanea.—Continued.

—XXII, 1849—1854. IIe Section. XIV—XIX, 1849 —1854. *Paris*. 4to.

(Wanting: Ire Section, Nos. 990, 992, 999, 1018, 1042, 1044, 1045, 1078, 1079; He Section, Nos. 200, 201, 209, 210. Also Titles and Tables of Contents to all but Vol. XII of the Ist Section.)

Magazin de Zoologie. I—VIII, 1831—1838. Paris. 8vo.
Magazin de Zoologie, d'Anatomie comparée et de Paléontologie. Deuxième série. I—VII, 1839—1843. Paris. 8vo.

Revue des Deux Mondes. Années XX—XXVII. Paris, 1850—1857. 8vo.

(Wanting Jan. 1, June 15, 1854; Aug. 1, Nov. 15, Dec. 15, 1857.)

Revue Scientifique et Industrielle. Sons la direction du Docteur QUESNEVILLE. I—XVIII. Paris, 1840—1844. 8vo.

Revue Zoologique, par la Société Cuviérienne; association universelle pour l'avancement de la Zoologie, de l'Anatomie comparée et de la Paléontologie. Journal mensuel. Publié sous la direction de M. F. E. GUERIN-MENEVILLE. 1838—1843. Paris. 8vo. (11 vols.)

Revue et Magazin de Zoologie pure et appliquée. Recueil mensuel destiné à faciliter aux savans de tous les pays les moyens de publier leurs observations de Zoologie pure et appliquée à l'industrie et à l'agriculture, leurs travaux de Paléontologie, d'Anatomie et de Physiologie comparées, et à les tenir au conrant des nouvelles découvertes et des progrès de la science. Par Messieurs F. E. Guerin-Meneville et Ad. Focillon. 2e série. I—IX, 1849—1857. Paris. 8vo.

(Purchased.)

Tablettes Européennes. Revue Politique et Littéraire. Tome deuxième. 1re Année. 16e Livraison. Paris, 1849. 8vo.

#### ROUEN.

# Academie des Sciences, Belles-Lettres et Arts de Rouen.

Précis analytique des Travaux de l'Acadén royale des Sciences, Belles-Lettres et Arts de Rouen. 2—1854. Rouen, 1843—1854. 8vo. (12 vols.)

#### SAINT-LO.

Annuaire du département de la Manche. Années IV—IX, 1832—1837; XI, XII, 1839, 1840; XVI, XVII, 1844, 1845; XXIII—XXV, 1851—1853; XXIX, 1857. Saint-Lô. 8vo.

(From M. Jules Travers, of Caen.)

### SAINT-QUENTIN.

### Societe Academique.

Société Académique de Saint-Quentin. Annales Agricoles, Scientifiques et Industrielles du département de l'Aisne. Deuxième série. Tome X, 1852; XI, 1853 et 1854. Saint-Quentin, 1853, 1855. 8vo.

#### STRASBOURG.

# Societe des Sciences, Agriculture et Arts de Strasbourg.

Mémoires de la Société des Sciences, Agriculture et Arts de Strasbourg. I, II, 1811, 1823. Strasbourg. 8vo.

Nouveaux Mémoires de la Société des Sciences, Agriculture et Arts du département du Bas-Rhin. I—III, 1832—1842. Strasbourg. 8vo.

Bulletin agricole de la Société des Sciences, Agriculture et Arts du département du Bas-Rhin. 1843—1849. Strasbourg. 8vo.

Séance publique de la Société des Sciences, Agriculture et Arts du Bas-Rhin. 1846—1849. Strasbourg. 8vo.

Journal de la Société des Sciences, Agriculture et Arts du département du Bas-Rhin. 1826. Nos. II, III, IV. Strasbourg. 8vo.

#### STRASBOURG.

#### Societe du Museum d'Histoire Naturelle.

Mémoires de la Société du Muséum d'Histoire Naturelle de Strasbourg. Tomes II, 1835; III, 1840—1846; IV, 1850—1853. Strasbourg. 4to.

#### TOULOUSE.

## Academie des Sciences, Inscriptions et Belles-Lettres.

- Histoire et Mémoires de l'Académie royale des Sciences, Inscriptions et Belles-Lettres de Toulouse. I, 1782; IV, 1790. *Toulouse*. 4to.
- Histoire et Mémoires de l'Académie royale des Sciences, Inscriptions et Belles-Lettres de Toulouse, depuis son établissement en 1807; pour faire suite à l'Histoire et aux Mémoires de l'ancienne Académie. I—VI, 1827—1843. Toulouse. 8vo.
- Mémoires de l'Académie (royale, nationale) impériale des Sciences, Inscriptions et Belles-Lettres de Toulouse. Troisième série. I—VI, 1844—1850. Quatrième série. I—IV, VI, 1851—1854, 1856. Cinquième série. I, 1857. Toulouse. 8vo.
- Annuaire de l'Académie (royale, nationale) impériale des Sciences, Inscriptions et Belles-Lettres de Toulouse pour l'année 1846, 1848—1851, 1854. *Toulouse*. 32mo.
- Statuts et Règlements de l'Académie (royale) nationale des Sciences, Inscriptions et Belles-Lettres de Toulouse. 1847, 1849. 32mo.

#### WISSEMBOURG.

#### Miscellanea.

Archives de la Flore de France et d'Allemagne. Journal Botanique, redigé par F. Schultz. Première partie, 1854—1855. Wissembourg. 8vo.

### ITALY.

## Riunione degli Scienziati Italiani.

- Atti della prima Riunione degli Scienziati Italiani tenuta in Pisa nell' Ottobre del 1839. Pisa, 1840. 4to.
- Idem. Seconda edizione, aumentata dell Orazione dell Prof.
  Rosini per l'Inaugurazione della statua del Galileo, e della Biografia del Cav. Pr. Gerbi. Pisa, 1840. 4to.
- Il Congresso di Pisa, Lettere di Gottardo Calvi. *Milano*, 1839. 8vo. pp. 88.
- Atti della seconda Riunione, Settembre 1840. Torino, 1841. 4to.
- Atti della terza Riunione, Settembre 1841. Firenze, 1841. 4to.
- Atti dei Congressi degli Scienziati Italiani, raccolti ed ordinati dall' Accademia degli Aspiranti Naturalisti; con note e comenti. Editore il socio ordinario Dottor LIONARDO DOROTEA. I—VI. Napoli, 1844—1845. 8vo.
- Diaro del settimo Congresso degli Scienziati Italiani in Napoli dal 20 di Settembre a' 5 di Ottobre dell' anno 1845. No. 1—20 di Settembre. 4to.
- Relazione del settimo Congresso degli Scienziati Italiani in Napoli nel 1845. Del Professore Carlo Gemmellaro, uno de due Deputati rappresentanti l'Accademia Gioneia al detto Congresso, letta nella seduta ordinaria del 20 Novembre 1845. Catania, 1845. 4to. pp. 27.
- Ottavo Congresso degli Scienziati Italiani in Genova nel Settembre 1846, rapporto dei Deputati dell' Accademia Fisio-medico-statistica di Milano, Dottore Giuseppe Ferrario e Consigliere nobile Ferdinando de Herra, Scudiere di S. M. I. R. Ap., ecc. Letto nella tornata accademica del giorno 21 Dicembre 1846. Milano, 1847. 8vo. pp. 11.
- Dei Lavori scientifici dell' VIII Congresso Italiano radunato in Genova nel Settembre del 1846. Relazione del Dottore Carlo Lurati. Vol. I, II. Lugano, 1847. 8vo.
- Alcune Osservazioni sopra i Congressi scientifici Italiani. Lettera di Tizio a Sempronio e riposta di Sempronio a Tizio. *Milano*, 1847. 8vo. pp. 16.

ITALY. 117

#### BOLOGNA.

## Accademia delle Scienze dell' Istituto di Bologna.

Novi Commentarii Academiae Scientiarum Instituti Bononiensis. I, 1834; II, 1836; III, 1839; IV, 1840; V, 1842; VI, VII, 1844; VIII, 1846; IX, X, 1849. Bononiae. 4to.

Indices Generales in Novos Commentarios Academiae Scientiarum Instituti Bononiensis. Bononiae, 1855. 4to.

Rendiconto delle Sessioni ordinarie dell' Accademia delle Scienze dell' Istituto di Bologna. (Estratto dal Bullettino delle Scienze Mediche.) Vol. I. *Bologna*, 1833. 8vo.

Rendiconto delle Sessioni dell' Accademia delle Scienze dell' Istituto di Bologna dal Novembre 1837 al Novembre 1838, 1838-39, 1839-40, 1840-41, 1841-42, 1842-43, 1843-44, 1844-45, 1845-46, 1846-47, 1847-48, 1848-49, 1849-50, 1850-51, 1851-52, 1852-53, 1853-54, 1854-55. Bologna. 8vo.

Memorie della Accademia delle Scienze dell' Istituto di Bologna. I, II, 1850; III, 1851; IV, 1853; V, 1854; VI, 1855. Bologna. 4to.

Annali di Storia Naturale. I—IV. Bologna, 1829—1830. 8vo.

Nuovi Annali delle Scienze Naturali. I-X. Bologna, 1838-1843. 8vo.

Nuovi Annali delle Scienze Naturali e Rendiconto delle Sessioni della Società Agraria, e dell' Accademia delle Scienze dell' Istituto di Bologna. Serie II. I—X, 1844 —1848. Serie III. I—X, 1850—1854. Bologna. 8vo.

# Imperial Regio Istituto Geologico.

L'Imperial Regio Istituto Geologico dell' Impero d'Austria e Rivista degli studi di Mineralogia, Geologia e Paleontologia nella Monarchia Austriaca 1850—1853. Di Adolfo Senoner. *Bologna*, 1854. 8vo. pp. 52.

#### Miscellanea.

Repertorium Italicum complectens Zoologiam, Mineralogiam, Geologiam et Palaeontologiam. Cura J. Josephi Bianconi. Vol. I, II. Bononiae, 1853, 1854. 8vo.

#### BRESCIA.

#### Ateneo di Brescia.

Commentari della Accademia di Scienze, Lettere, Agricultura, ed Arti del Dipartimento del Mella per l'anno 1808. Brescia, 1808. 8vo.

Idem p	er l'anno	1809.	Brescia,	1814.	8vo.
66	"	1810.	"	1811.	
"	"	1811.	"	1812.	

Commentarj dell' Ateneo di Brescia per l'anno 1812. Brescia, 1814. 8vo.

Idem	per l'anno	1813—1815.	Brescia,	1818.
"	"	1816, 1817.	"	1818.
"	"	1818, 1819.	"	1820.
"	"	1820.	"	1823.
"	"	1821.	"	1824.
"	"	1822.	"	1824.
"	"	1823.	"	1824.
"	"	1824.	"	1825.
"	"	1825.	"	1826.
* "	"	1826.	"	1827.
"	"	1827.	"	1828.
"	"	1828—40.	"	1829-42.
" "	"	1842—50.	"	1844—50.
(Wan	ting 1841.)	)		

#### CATANIA.

## Accademia Gioenia di Scienze Naturali.

Atti dell' Accademia Gioenia di Scienze Naturali di Catania. I—XX, 1825—1843. Serie seconda. I—VIII, 1844—1853. Messina and Catania. 4to.

Relazione Accademica del' anno XXIV dell' Accademia Gioenia, letta nella tornata ordinaria del di 8 Giugno 1848, & XXV 24 Giugno 1849, dal Segretario generale Prof. Carlo Gemmellaro. Catania, 1849. 4to.

# FIRENZE (FLORENCE).

#### Accademia del Cimento.

Saggi di naturali Esperienze fatte nell' Accademia del Cimento. Terza Edizione fiorentina, preceduta da Notizie ITALY. 119

#### FIRENZE.

#### Accademia del Cimento. - Continued.

storiche dell' Accademia stessa, e seguitata da alcune Aggiunte. Firenze, 1841. 4to.

Notizie sulla Storia delle Scienze fisiche in Toscana, cavate da un manoscritto inedito di Giovanni Targioni-Tozzetti. Firenze, 1852. 4to.

#### LUCCA.

# Reale Accademia Lucchese di Scienze, Lettere ed Arti.

Atti dell' I. e R. Accademia Lucchese di Scienze, Lettere ed Arti. I—XV. Lucca, 1821—1855. 8vo.

Memorie e Documenti per servire all' Istoria del Principato Lucchese (della Città e Stato di Lucca). Tomo I, 1813; II, 1814; III, I, 1816; II, 1817; IV, I, 1818; II, 1836; V, I, 1844; II, 1837; III, 1841; VII, 1834; IX, 1825; X, 1831. Lucca. 4to. (Wanting VI & VIII.)

# MILANO (MILAN).

# Accademia Fisio-medico-statistica di Milano.

Diario ed Atti dell' Accademia Fisio-medico-statistica di Milano. 1846, 1847, 1848, 1854. Milano. 4to.

## Imperiale Regio Istituto Lombardo di Scienze, Lettere ed Arti.

Giornale dell' I. R. Istituto Lombardo di Scienze, Lettere ed Arti. I, 1841; II, III, 1842; IV, 1843; V, 1844;
 VI, 1845; VII, 1846; VIII, 1847. Milano. 8vo.

Giornale dell' I. R. Istituto Lombardo di Scienze, Lettere ed Arti e Biblioteca Italiana. Nuova serie. I, 1847; II, 1850; III, 1851; IV, 1852; V, 1853; VI, 1854; VII, 1855. *Milano*. 4to.

Memorie dell' I. R. Istituto Lombardo di Scienze, Lettere ed Arti. I, 1843; II, 1845; III, 1852; IV, 1854; V, 1856. Milano. 4to.

#### MILANO.

#### Osservatorio.

Osservazioni sull' Intensità e sulla Direzione della Forza Magnetica, istituite negli anni 1836, 1837, 1838, all' I. R. Osservatorio di Milano da Carlo Kreil e Pietro Della Vedova. *Milano*, 1839. 8vo.

Primo Supplemento alle Effemeridi Astronomiche di Milano. 1838. 8vo.

Effemeridi Astronomiche di Milano. 1841—1855. Con Appendice di Osservazioni e Memorie Astronomiche. *Milano*, 1840-53. 8vo.

Annuale Astronomico di Milano per l'anno 1837, 1838, 1839. Milano. 24mo.

#### Miscellanea.

Rendiconto della Beneficenza dello Spedale Maggiore e Pio Istituto di Santa Corona in Milano per l'anno 1851. Aggiunte alcune Notizie Statistiche ed Economiche per altri pii stabilimenti della Città e Provincia di Milano chi ricoverano ammalati del Dottore Andrea Buffini. Milano, 1852. 4to.

Rendiconto della Benefizenza dell' Ospitale Maggiore e del Pio Istituto di Santa Corona in Milano per l'anno 1852, del Dottore Andrea Verga, Direttore. Idem, per l'anno 1853. *Milano*, 1853, 1854. 4to.

Lo Spettatore ossia Varietà Istoriche, Letterarie, Critiche, Politiche e Morali del Signor Malte-Brun. Recate in Italiano con Note. Tomi I—XI. Milano, 1814—1818. 8vo. (Bound in 23 vols.)

Il Raccoglitore ossia Archivj di Viaggi, di Filosofia, d'Istoria, di Poesia, di Eloquenza, di Critica, di Archeologia, di Novelle, di Belle Arti, di Teatri e Feste, di Bibliografia e di Miscellanee; adorni di Rami. Compilato per DAVIDE BERTOLOTTI. Vol. I—XXIV. Milano, 1819—1824. 8vo.

Il Nuovo Ricoglitore ossia Archivi di Geografia, di Viaggi, etc. Opera che succede allo Spettatore Italiano e Straniero, ed al Ricoglitore. Anni I, II, III. Milano 1825—1827. Svo. (6 vols.)

121

# ITALY. MILANO.

### Miscellanea. - Continued.

Milano e Lombardi nel 1818 di DAVIDE BERTOLOTTI. Milano, 1818. 8vo.

Collezione degli Atti delle solenni Distribuzioni de' Premj d'Industria fatte in Milano ed in Venezia dall'anno 1806 in avanti. Vol. I—VIII. Milano, 1824—1857. 8vo.

### MODENA.

#### Societa Italiana delle Scienze.

Memorie di Matematica e di Fisica della Società Italiana delle Scienze residente in Modena. XXIV, 1, 1848; 11, 1850; XXV, 1, 1852; 11, 1855. Modena. 4to.

# NAPOLI (NAPLES).

## Accademia degli Aspiranti Naturalisti.

Discorso pronunziato nella solenne e pubblica adunanza dell' Accademia degli Aspiranti Naturalisti dal Fondatore e Direttore della medesima, il giorno 10 Gennajo 1841. Napoli, 1841. 8vo. pp. 8.

Atti dei Congressi degli Scienziati Italiani raccolti ed ordinati dall' Accademia degli Aspiranti Naturalisti; con Note e Comenti. Editore il Socio ordinario Dottor Lionardo Dorotea. [Programme.] 8vo. pp. 4.

[List of Members and Bibliographical Announcements.] Napoli, 1849.

## Reale Accademia delle Scienze e Belle Lettere.

Atti della Reale Accademia delle Scienze, sezione della Società Reale Borbonica. I, 1819; II, 1825; III, 1832; IV, 1839; V, I, 1843; II, 1844; VI, 1851–52. Napoli. 4to.

Rendiconto della Reale Accademia delle Scienze, sezione della Società Reale Borbonica. Nuova Scrie. Anno I, 1, 11, V, VI, 1852; II, 1853; IV, 1855. Napoli. 4to. Avviso a' Cultori delle Scienze Naturali. 8vo. pp. 3.

#### NAPOLI.

## Reale Osservatorio di Napoli.

Annuario del Reale Osservatorio Astronomico di Napoli. 1847, 1855, 1856. Napoli. 24mo.

# PADOVA (PADUA).

# Imperiale Regia Accademia di Scienze, Lettere ed Arti di Padova.

Saggi Scientifici e Letterarj dell' Accademia di Padova. I, 1786; II, 1789; III, I, II, 1794. Padova. 4to.

Memorie della Accademia di Scienze, Lettere ed Arti di Padova. V, 1809. Padova. 4to.

Nuovi Saggi della Cesareo-Regia Accademia di Scienze, Lettere ed Arti di Padova. I, 1817; II, 1825; III, 1831; IV, 1838; V, 1840; VI, 1847. Padova. 4to.

Rivista Periodica dei Lavori della I. R. Accademia di Scienze Lettere ed Arti di Padova. I—III, 1851-55. Padova. 8vo.

### PALERMO.

## Accademia Palermitana di Scienze e Lettere.

Atti della Accademia di Scienze e Lettere di Palermo. Nuova serie. I. Palermo, 1845. 4to.

#### Miscellanea.

Specchio delle Scienze, o Giornale Enciclopedico di Sicilia.
Deposito letterario delle moderne Cognizioni, Scoperte, ed Osservazioni sopra le Scienze ed Arti, e particolarmente sopra la Fisica, la Chimica, la Storia naturale, la Botanica, l'Agricoltura, la Medicina, il Commercio, la Legislazione, l'Educazione, &c. Scritto dal Signor C. S. RAFINESQUE. Tomi I, II. Palermo, 1814. 8vo.

# ROMA (ROME).

# Osservatorio Astronomico del Collegio Romano.

Annali dell' Osservatorio Astronomico diretto dai PP. delle Compagnia di Gesù nel Collegio Romano. I. Roma, 1843. 4to. ITALY. 123

#### ROMA.

# Osservatorio Astronomico del Collegio Romano.— Continued.

Memoria intorno ad alcune Osservazioni fatte alla Specola del Collegio Romano nel corrente anno 1838. *Roma*. 4to. Memoria intorno a parecchie Osservazioni fatte nella Specola dell' Università Gregoriana in Collegio Romano dagli Astronomi della Compagnia di Gesù l'anno 1839.

Pubblicato il di 31 Gennajo 1840. Roma. 4to.

Idem. Anni 1840-41. Pubb. Feb. 1842.

" Anno 1842. " Lugl. 1843.

Osservazioni fatte nella Specola dell' Università Gregoriana in Collegio Romano diretto dai PP. della Compagnia di Gesù. Anno 1843. *Roma*. 4to.

Memorie dell' Osservatorio dell' Università Gregoriana in Collegio Romano diretto dai PP. della Compagnia di Gesù. Anno 1850. *Roma*, 1851. 4to.

Descrizione del Nuovo Osservatorio del Collegio Romano D. C. D. G. e Memoria sui lavori eseguite dal 1852 a tutto Aprile 1856. Del P. Angelo Secchi D. M. C. Roma, 1856. 4to.

## Accademia Pontificia de' Nuovi Lincei.

Statuti per l'Accademia Pontificia de' Nuovi Lincei. Roma, 1847. 4to. pp. 19.

Atti dell' Accademia Pontificia de' Nuovi Lincei publicati conforme alla decisione accademica del 22 Dicembro 1850, e compilati dal Segretario. Tomo I, 1847–48; IV, 1850–51; V, 1—IV, VI, VII, 1851–52; VI, 1852–53; VII, I, II, 1853–54; X, I—VI, 1856–57. Romα, 1851—1857. 4to.

# TORINO (TURIN).

#### Reale Accademia delle Scienze.

Memorie della Reale Accademia delle Scienze di Torino.
Serie II. I, 1839; II, 1840; III, 1841; IV, 1842; V, 1843; VI, 1844; VII, 1845; VIII, 1846; IX, 1848; X, 1849; XI, 1851; XII, 1852; XIII, 1853; XIV, 1854; XV, 1855; XVI, 1857. Torino. 4to.

## VENEZIA (VENICE).

## I. R. Istituto Veneto di Scienze, Lettere ed Arti.

Atti delle Adunanze dell' I. R. Istituto Veneto di Scienze,
Lettere ed Arti. Dal Marzo 1840 all' Ottobre 1841.
I. Venezia, 1841. 8vo.

II, 1841–43.	Venezia,	1843.	8vo.
III, 1843-44.	"	1844.	
IV, 1844-45.	"	1845.	
V, 1845-46.	"	1846.	
VI, 1846-47.	"	1847.	
VII, 1847–48.	"	1848.	
Serie secunda. I, 1850.	"	1850.	
II, 1850–51.	"	1851.	
III, 1851–52.	"	1852.	
IV, 1852–53.	"	1853.	
V, 1853–54.	"	1854.	
VI, & App. 1854-55.	"	1855.	
Serie terza. I, 1855–56.	"	1855-5	6.
II, 1856-57.	"	1856 - 5	7.

Memorie dell' I. R. Instituto Veneto di Scienze, Lettere ed Arti. V, 1855; VI, I, 1856; II, 1857. Venezia. 4to.

#### VERONA.

# Accademia d'Agricoltura, Commercio ed Arti di Verona.

Memorie dell' Accademia d'Agricoltura, Commercio ed Arti di Verona. I, II, 1807; III, 1812; IV, 1813; V, VI, VII, 1815; IX, X, 1824; XI, 1829; XII, XIII, 1831; XIV, 1833; XV, 1834; XVI, 1840; XVII, XVIII, XIX, 1841; XX, 1842; XXI, 1846; XXII, 1848; XXIII, 1849; XXIV, 1850; XXV, 1851; XXVI, 1850; XXVII, XXVIII, 1851; XXIX, 1853; XXX, 1854; XXXI, XXXII, 1855. Verona. 8vo.

Storia della Accademia di Agricoltura, Commercio ed Arti di Verona pel triennio 1848-49-50. Compilata dal Socio Antonio Manganotti. Letta nella tornata 2 Dicembre 1852. Verona, 1853. 8vo. pp. 46.

125

## SPAIN.

#### BARCELONA.

# Real Academia de Buenas-Letras de la Ciudad de Barcelona.

Real Academia de Buenas-Letras de la Ciudad de Barcelona; Origen, Progresos, y su primera Junta general baxo la proteccion de su Magestad, con los Papeles que en ella se acordaron. Tomo primo. Partes I, II. Barcelona. 4to.

#### MADRID.

#### Real Academia de Ciencias de Madrid.

Memorias de la Real Academia de Ciencias. Tomos I— IV. Madrid, 1850-56. 4to.

Tomo I, containing: Estatutos; 3d Serie, Ciencias Naturales. I, 1850—1854.

Tomo II, containing: 1a Serie, Ciencias Exactes. I, 1, 1853.

Tomo III, containing: 2a Serie, Ciencias Fisicas. I, 1, 1856.

Tomo IV, containing: 3a Serie, Ciencias Naturales. II, 1, 1856.

Programmo para la Adjudication de Premios en el año 1856. Madrid, 1855. 4to. pp. 3.

Resúmen de las Actas de la Academia Real de Ciencias de Madrid en el año academico de 1849-53. Leido en la sesion del dia 11 de Octubre, por el Segretario perpetuo, Doctor Don Mariano Lorente. Madrid, 1850-54. 4to.

#### Real Academia de la Historia.

Memorias de la Real Academia de la Historia. I, II, 1796;
III, 1799; IV, 1805; VI, 1821; VII, 1832; VIII, 1852. Madrid. 4to.

Viage Literario á las Iglesias de España. Su antor Don JAIME VILLANEUVA. XI—XXII, 1850—1852. Madrid. 8vo.

#### MADRID.

### Real Academia de la Historia.—Continued.

Memorial Histórico Español: Colleccion de Documentos,
Opúsculos y Antigüedades, que publica la Real Academia de la Historia. I, II, 1851; III, IV, 1852; V, VI, 1853;
VII, 1854. Madrid. 8vo.

Noticia de las Actas y Tareas de la Real Academia de la Historia, leida en su Junta publica anual de 24 de Abril de 1853, por Don Pedro Sabau. *Madrid*, 1853. 8vo.

Las Siete Partidas del Rey Don Alfonso el Sabio, cotejadas con varios codices antiguos por la Real Academia de la Historia. Tomo II. Partida Segunda y Tercera. Tomo III. Partida Quarta, Quinta, Sexta y Septima. Madrid, 1807. 4to.

#### SAN FERNANDO.

### Observatorio de Marina de San Fernando.

Almanaque Náutico para el año 1859, calculado de órden de S. M. en el Observatorio de Marina de la Ciudad de S. Fernando. Cadiz, 1857. 8vo.

### PORTUGAL.

# LISBOA (LISBON).

# Academia Real da Historia Portugueza.

Collecçam dos Documentos e Memorias da Academia Real da Historia Portugueza, que neste anno de 1722 se compuzeraō e se imprimiraō por ordem dos seus Censores, dedicada a Elrey nosso Senhor, seu Augustissimo Protector, e ordenada pelo Marquez de Alegrete Manoel Telles da Sylva. Lisboa, 1722. royal 8vo.

Idem.	Anno	1725.	Lisboa.	royal 8vo.
"	"	1726.	44	44
44	4.6	1728.	"	"
11	"	1729.	* *	"
"	"	1730.	6.6	"
44	6.6	1732.	"	"
"	4.6	1733.	"	"

#### LISBOA.

### Academia Real das Sciencias.

- Memorias de Litteratura Portugueza, publicadas della Academia Real dus Sciencias de Lisboa. (Nisi utile est quod facimus, stulta est gloria.) I, 1792; II, 1792; III, 1792; IV, 1793; VI, 1796; VII, 1806. Lisboa. 8vo.
- O Mordomo do Rei. Memoria offerecida á Academia R. das Sciencias de Lisboa por Jose Barbosa Canaes de Figueiredo Castello Branco. *Lisboa*, 1851. 8vo.
- Apontamentos ácerca da Villa de Soure por Jose Bar-BOSA CANAES DE FIGUEIREDO CASTELLO BRANCO. Lisboa, 1851. roy. 8vo.
- Apontamentos sobre as Relações de Portugal com a Syria no Seculo 12o. Lida na secção de 27 de Outubro de 1853 por Jose Barbosa Canaes de Figueiredo Castello Branco. Lisboa, 1854. roy. 8vo.
- Noticia Chronologica dos Condes de Castella, por Jose Barbosa Canaes de Figueiredo Castello Branco, Socio effectivo da Academia Real das Sciences. *Lisboa*, 1854. 4to.
- Trabalhos do Observatorio Meteorologico do Infante D.
  Luiz na Escola Polytechnica. 20 Anno (1855—1856).
  Lisboa, 1857. fol.

# GREAT BRITAIN AND IRELAND.

# British Association for the Advancement of Science.

Report of the First and Second Meetings of the British Association for the Advancement of Science; at York in 1831, and at Oxford in 1832. 2d edit. London, 1835. 8vo.

3d, at Cambridge,	in	1833.	London,	1834.
4th, at Edinburgh,		1834.	"	1835.
5th, at Dublin,		1835.	"	1836.
6th, at Bristol,		1836.	"	1837.
7th, at Liverpool,		1837.	"	1833.

# British Association for the Advancement of Science.—Continued.

8th, at Newcastle,	1838.	London,	1839.
9th, at Birmingham,	1839.	"	1840.
10th, at Glasgow,	1840.	"	1841.
11th, at Plymouth,	1841.	"	1842.
12th, at Manchester,	1842.	44	1843.
13th, at Cork,	1843.	44	1844.
14th, at York,	1844.	"	1845.
15th, at Cambridge,	1845.	"	1846.
16th, at Southampton,	1846.	"	1847.
19th, at Birmingham,	1849.	"	1850.
20th, at Edinburgh,	1850.	"	1851.
21st, at Ipswich,	1851.	"	1852.
22d, at Belfast,	1852.	"	1853.
23d, at Hull,	1853.	"	1854.
24th, at Liverpool,	1854.	"	1855.
25th, at Glasgow,	1855.	"	1856.
26th, at Cheltenham,	1856.	"	1857.
27th, at Dublin,	1857.	**	1858.

Meeting of the British Association at Newcastle. Report of the Local Secretaries. *Newcastle*, 1839. 8vo.

# Archæological Institute of Great Britain and Ireland.

Proceedings at the annual Meeting of the Archæological Institute of Great Britain and Ireland, at Winchester, September, 1845. London, 1846. 8vo.

York Meeting, July, 1846. London, 1847. Norwich "1847. "1851. Lincoln "1848. "1850. Salisbury "1849. "1851.

#### BATH.

# Bath and West of England Agricultural Society.

Journal of the Bath and West of England Society for the Encouragement of Agriculture, Arts, Manufactures, and Commerce, established 1777. I—III, 1853—1855; V, 1857. London. Svo.

#### BATH.

## Bath and West of England Agricultural Society.— Continued.

A Catalogue of the Beasts, Horses, Sheep, and Pigs, and of the various Agricultural Implements, etc., exhibited at the Society's Show, June 8th, 9th, and 10th, 1853. Plymouth, 1853. 8vo.

#### BELFAST.

## Natural History and Philosophical Society.

[Miscellaneous sheets relating to its Meetings.] 8vo.

## Miscellanea.

The Ulster Journal of Archeology. Vols. I—IV, 1853—1856. Belfast. 4to.

The Annals of Ulster. Translated from the text of O'Connor's Rerum Hibernicarum Scriptores Veteres, for the Ulster Journal of Archwology. Belfast, 1853. 4to. pp. 1—40.

## Ulster Chemico-Agricultural Society.

The Journal and Transactions of the Chemico-Agricultural Society of Ulster. I, II, 1849—1854. Belfast. 4to.

#### BERWICK-ON-TWEED.

## Berwickshire Naturalists' Club.

Proceedings of the Berwickshire Naturalists' Club. Vol. III, I—VII, 1850—1856; IV, I, 1857. Svo.

#### CAMBRIDGE.

# Cambridge Philosophical Society.

Transactions of the Cambridge Philosophical Society. I—VIII, 1822—1849; IX, I, 1851; III, 1853; IV, 1856. Cambridge. 4to. (Wanting II, I; IX, II.)

# Cambridge Observatory.

Astronomical Observations made at the Observatory at Cambridge. I—XVIII, 1828—1851. Cambridge, 1829—1857. 4to.

#### CAMBRIDGE.

## Cambridge Observatory.—Continued.

Account of the Northumberland Equatorial and Dome, attached to the Cambridge Observatory. By G. B. AIRY, Esq., M. A. Cambridge, 1844. 4to. pp. 39 and Plates.

## Observatory of St. John's College.

Astronomical Observations made by the Rev. Thomas Catton, B. D. Reduced and printed under the superintendence of *George Biddell Airy*, Esq., Astronomer Royal. London, 1853. 4to. pp. 32.

## Cambridge University.

Cambridge Essays. Contributed by Members of the University. London, 1855. 8vo.

#### DUBLIN.

## Dublin University Philosophical Society.

Transactions of the Dublin (University) Philosophical Society. I—V, 1842—1851. Dublin, 1843—1852. 8vo.

# Geological Society.

Journal of the Geological Society of Dublin. I—VII, 1833—1857. Dublin, 1838—1857. 8vo.

# Royal Dublin Society.

The Journal of the Royal Dublin Society. Vol. I, 1856-57. Dublin, 1858. 8vo.

# Royal Irish Academy.

Proceedings of the Royal Irish Academy. I—V, VI, I—III, 1836-56. Dublin, 1841—1856. 8vo. (Wanting IV, II.)

Transactions of the Royal Irish Academy. I—XXII, 1787—1855; XXIII, I, 1856. Dublin. 4to.

List of Members of the Royal Irish Academy. 1846, 1848.
Dublin. 8vo.

#### DURHAM.

## University Observatory.

Results of Astronomical Observations, made at the Observatory of the University, Durham, from October, 1849, to April, 1852. Durham, 1855. Svo.

#### EDINBURGH.

## The Bannatyne Club.

Bannatyne Club. Nos. XXIII—XXVI. Abstract of the Treasurer's accounts, 1852—1855. 4to.

Album of the Bannatyne Club. No. III. 8vo.

Catalogue of the books printed for the Members of the Bannatyne Club since its institution. February, 1854. 8vo.

Thomas Thomson, Esq., Advocate, President of the Bannatyne Club. 4to. pp. 12.

The Bannatyne Miscellany; containing original papers and tracts, chiefly relating to the History and Literature of Scotland. III. Edinburgh, 1855. 4to.

Historical Notices of Scottish Affairs, selected from the manuscripts of Sir John Lauder of Fountainhall, Bart., one of the senators of the College of Justice. I—II, 1661—1688. *Edinburgh*, 1848. 4to.

Historical Observes of Memorable Occurrents in Church and State, from October, 1680, to April, 1686. By Sir Joun Lauder, of Fountainhall. *Edinburgh*, 1840. 4to.

Some Historicall Observes breiflie mentioning some of the Memorable Occurrents happening ather in Church or State throw Europe but more especially in Scotland and England, being a continuation of remarks of this nature in another Svo. book. Edinburgh, 1680—1686. 4to.

The Letters and Journals of Robert Baillie, A. M., Principal of the University of Glasgow. 1737—1772. In three volumes. *Edinburgh*, 1841—1842. 4to. (*Purchased*.)

Memoir of the Life and Writings of Robert Baillie. 4to. Horn et Rimenhild. Recueil de ce qui reste des Poëmes relatifs à leurs aventures composés en français, en anglais et en écossais dans les treizième, quatorzième, quinzièm.

## The Bannatyne Club.—Continued.

- et seizième siècles. Publié d'après les manuscrits de Londres, de Cambridge, d'Oxford et d'Edinburgh, par Francisque Michel. Paris, 1845. 4to.
- Carte Monialium de Northberwic. Prioratus cisterciensis B.
   Marie de Northberwic munimenta vetusta que supersunt.
   Edinburgi, 1847. 4to.
- Vita Sancti Columbæ: auctore Adamnano Monasterii Hiensis Abbate. Dublinii, 1847. 4to.
- Liber S. Thome de Aberbrothoc. Registrorum Abbacie de Aberbrothoc Pars prior. Registrum vetus munimentaque eidem coetanea complectens. 1178—1329. Edinburgi, 1848. 4to.
- Liber S. Thome de Aberbrothoc. Pars altera, Registrum Nigrum necnon Libros Cartarum recentiores complectens. 1329—1536. Edinburgi, 1856. 4to.
- Registrum S. Marie de Neubotle: Abbacie cisterciensis
  Beate Virginis de Neubotle Chartarium vetus. Accedit
  appendix Cartarum originalium. 1140—1528. Edinburgi, 1849. 4to.
- Registrum Honoris de Morton: a series of ancient Charters of the Earldom of Morton, with other original papers, in two volumes. I. Original papers. II. Ancient charters. *Edinburgh*, 1853. 4to.
- Registrum Episcopatus Brechinensis, cui accedunt Cartæ quamplurimæ originales. I. Registrum. II. Appendix Cartarum. *Aberdoniæ*, 1856. 4to.
- The Darien Papers: being a selection of original Letters and official documents relating to the establishment of a colony at Darien by the Company of Scotland trading to Africa and the Indies. 1695—1700. Edinburgh, 1849. 4to.
- Descriptive catalogue of Impressions from ancient Scottish Seals, royal, baronial, ecclesiastical, and municipal, embracing a period from A. D. 1094 to the Commonwealth. Taken from original charters and other deeds preserved in public and private archives. By Henry Laing, Edinburgh. Edinburgh, 1850. 4to.

## The Bannatyne Club.—Continued.

- Origines Parochiales Scotiæ. The Antiquities ecclesiastical and territorial of the parishes of Scotland. I, II, 1, 11. Edinburgh, 1850—1855. 4to.
- Original Letters relating to the Ecclesiastical Affairs of Scotland, chiefly written by or addressed to his majesty King James the Sixth, after his accession to the English throne. I, II, 1603—1625. *Edinburgh*, 1851. 4to.
- Breviarium Aberdonense. I, II. Londini, 1854. 4to.
- The Black Book of Taymouth, with other papers from the Breadalbane Charter room. Edinburgh, 1855. 4to.
- A series of Etchings, chiefly of Views in Scotland. By John Clerk, of Eldin, Esq. 1773—1779. With additional Etchings and Fac-similes from his Drawings. *Edinburgh*, 1855. fol.

# Botanical Society of Edinburgh.

First Annual Report, Laws, and Proceedings of the Botanical Society of Edinburgh. Instituted 17th March, 1836. Session 1836-37. Third, fourth, fifth, sixth, seventh, and eighth Reports. 1839-44. Edinburgh, 8vo.

Laws, By-laws, and Regulations of the Botanical Society of Edinburgh. Corrected to 1st October, 1841. Edin-

burgh, 1841. 8vo.

Transactions of the Botanical Society. I—III, IV. 1, 11, V. Edinburgh, 1844-56. 8vo.

# The Highland and Agricultural Society of Scotland.

Prize Essays and Transactions of the Highland and Agricultural Society of Scotland. XI, pp. 1—56, 125—168. Edinburgh, 1835. 8vo.

Premiums offered by the Highland and Agricultural Society of Scotland for promoting Agriculture and Internal Improvement in Scotland in 1836. *Edinburgh*. 8vo.

# Royal Observatory.

Astronomical Observations made at the Royal Observatory, Edinburgh. I—XI, 1834—1854. Edinburgh, 1838— 1857. 4to.

## Royal Observatory.—Continued.

Extracts from the Letter-press of the Astronomical Observations made at the Royal Observatory, Edinburgh, 1842—1847. *Edinburgh*, 1849—1852. 4to.

Report to the principal Secretary of State for the Home Department on the Royal Observatory of Edinburgh. 1846. 4to.

## Royal Scottish Society of Arts.

Transactions of the Royal Scottish Society of Arts. Vol. I, Preface, Index, and pp. 71—91; II; III, I, III, V; IV. Edinburgh, 1841-55. 8vo.

List of Fellows, Honorary Members, and Associates of the Royal Scottish Society of Arts. 1840. 8vo.

## Royal Society of Edinburgh.

Transactions of the Royal Society of Edinburgh. IV—XXI, 1793—1856. Edinburgh, 1798—1856. 4to.

Proceedings of the Royal Society of Edinburgh. Sessions 1851-2, 1852-3, 1853-4, 1854-5, 1855-6, 1856-7. *Edinburgh*. 8vo.

# Scottish Meteorological Society.

Report of the Preliminary Meeting of the Scottish Meteorological Association. 1855. Edinburgh. 6vo.

# Society of Antiquaries of Scotland.

Proceedings of the Society of Antiquaries of Scotland. Vols. I, II. Edinburgh, 1855, 1856. 4to.

Archæologia Scotica: or Transactions of the Society of Antiquaries of Scotland. I—IV, 1792—1823. Edinburgh. 4to.

### Miscellanea.

The Edinburgh Philosophical Journal, exhibiting a view of the progress of discovery in natural philosophy, chemistry, natural history, practical mechanics, geography, statistics, and the fine and useful arts. Conducted by Dr. Brewster and Prof. Jameson. I—XIV. Edinburgh, 1819—1826. Svo.

### Miscellanea.—Continued.

- The Edinburgh New Philosophical Journal, exhibiting a view of the progressive improvements and discoveries in the sciences and the arts. Conducted by ROBERT JAMESON. I—LVII. Edinburgh, 1826—1854. 8vo.
- The Edinburgh New Philosophical Journal, exhibiting a view of the progressive discoveries and improvements in the sciences and the arts. Editors: Thomas Anderson, Sir William Jardine, and John Hutton Balfour. For America, Henry Darwin Rogers. I—VII. New series. Edinburgh, 1855—1858. 8vo.
- The Edinburgh Journal of Science, exhibiting a view of the progress of discovery in natural philosophy, chemistry, mineralogy, geology, botany, zoology, comparative anatomy, practical mechanics, geography, navigation, statistics, antiquities, and the fine and useful arts. Conducted by DAVID BREWSTER. I—X, 1824—1829. New series. I—VI, 1829—1832. Edinburgh. 8vo.
- Magazine of Zoology and Botany. Conducted by Sir W. Jardine, Bart., P. S. Selby, Esq., and Dr. Johnston. I, II. Edinburgh, 1837, 1838. 8vo.
- The Edinburgh Journal of Natural and Geographical Science. Under the direction of William Ainsworth and Henry A. Cheek. I, II. Edinburgh, 1830. 8vo.
- Chambers's Journal of Popular Literature, Science, and Arts. New Series. Reprint of the Edinburgh edition. II—VII. New York, 1855-57. royal 8vo.
  - (Wanting I; II, Parts VII—X; IV, XX—XXIV; V, XXVI—XXVIII, XXX.)
- Blackwood's Edinburgh Magazine. Vols. LXIX LXXVIII, LXXIX, Feb. New York, 1851—1856. 8vo.
  - (Wanting LXXI, April; LXXII, July, Sept., Dec.; LXXIII, Jan., March—May; LXXV, February; LXXVI, Aug., Dec.; LXXVIII, Dec.)
- The Edinburgh Review or Critical Journal. I—CII, CV, 1, 1802—1855, 1857. Edinburgh. 8vo.
- General Index to the Edinburgh Review, from its com.

### Miscellanea. -- Continued.

mencement in October, 1802, to the end of the eightieth volume. *Edinburgh* and *London*, 1813, 1832, 1850. 8vo. (3 vols.)

The North British Review. I—XVI, 1844—1851; XX, XL; XXI—XXIII; XXIV, XLVII, 1854, 1855. Edinburgh. 8vo.

(Purchased.)

#### FALMOUTH.

## Royal Cornwall Polytechnic Society.

The Twenty-second Annual Report of the Royal Cornwall Polytechnic Society. Falmouth, 1854. 8vo.

#### GREENWICH.

## Royal Observatory.

Plan of the Buildings and Grounds of the Royal Observatory, Greenwich, with Explanation and History. *London*, 1847. 4to.

Regulations of the Royal Observatory, Greenwich. 1852. 4to.

Description of the Altitude and Azimuth Instrument creeted at the Royal Observatory, Greenwich, in the year 1847. 4to.

Explanation of a proposed construction of Zenith Sector. Greenwich, 1848. 4to.

Description of the Transit Circle of the Royal Observatory, Greenwich. 1852. 4to.

Description of the Instruments and Process used in the Photographic Self-registration of the Magnetical and Meteorological Instruments at the Royal Observatory, Greenwich. *London*, 1849. 4to.

Astronomical Observations made at the Royal Observatory at Greenwich. I—IV, I, III; V, I, II (1811—1824); 1825—1835. London, 1815—1836. fol.

(Wanting IV, II; V, III?)

Astronomical Observations made at the Royal Observatory, Greenwich. 1836—1855. London, 1837—1857. 4to.

#### GREENWICH.

## Royal Observatory.—Continued.

- Appendix to Greenwich Observations. 1836. Idem, 1837, 1842, 1847. London. 4to.
- Appendix to the Greenwich Observations, including the results of Magnetical and Meteorological Observations. 1848. Idem, 1849, 1850, 1851, 1852, 1853, 1854 & 1855. 4to.
- Determination of the Longitude of Valentia in Ireland, by transmission of Chronometers (forming the Appendix to the Greenwich Astronomical Observations, 1845). 4to.
- Reduction of the Observations of Planets, made at the Royal Observatory, Greenwich, from 1750 to 1830. London, 1845. 4to.
- Reduction of the Observations of the Moon, made at the Royal Observatory, Greenwich, from 1750—1830. I, II. London, 1848. 4to.
- Magnetical and Meteorological Observations made at the Royal Observatory, Greenwich, in the years 1840 and 1841, 1842, 1843, 1844, 1845, 1846, 1847. London, 1842—1849. 4to.
- Reports of the Astronomer Royal to the Board of Visitors. 1836—1856. 4to.
- Address of the Astronomer Royal to the Individual Members of the Board of Visitors of the Royal Observatory: and Report of the Astronomer Royal, 1853. Idem, 1855. 4to.
- Approximate Right Ascension and North Polar Distance of 720 Stars, from observations made at the Royal Observatory at Greenwich. *London*. fol. pp. 10.
- A Catalogue of 1112 Stars, reduced from observations made at the Royal Observatory of Greenwich, from the years 1816 to 1833. London, 1833. folio.
- Tables containing the sum of three Equations of Aberration, solar Nutation, and Precession, for twenty-three principal fixed Stars, for every day in leap year, the first, second, and third years after. *London*. fol. pp. 48.
- The sum of three Equations of Aberration, solar Nutation, and Precession, of forty principal Stars, for every day of

#### GREENWICH.

## Royal Observatory.—Continued.

the year, in leap year, the first, second, and third years after. London. fol. pp. 85.

Rates of Chronometers on trial for purchase by the Board of Admiralty, at the Royal Observatory. *Greenwich*, 1849. 4to.

#### KILKENNY.

# Kilkenny and South-East of Ireland Archæological Society.

Transactions of the Kilkenny Archeological Society. II, 1852-53. Dublin, 1855. 8vo.

Proceedings and Transactions of the Kilkenny and South-East of Ireland Archæological Society. III, 1854-55. Dublin, 1856. 8vo.

(Wanting pp. 369-408 inclusive.)

The Journal of the Kilkenny and South-East of Ireland Archæological Society. Vol. I. New series. 1856-57. *Dublin*, 1858. 8vo.

(Wanting No. 7.)

#### LEEDS.

# Geological and Polytechnic Society of the West Riding of Yorkshire.

The Geological and Polytechnic Society of the West Riding of Yorkshire. Established December, 1837. 8vo.

Proceedings of the Geological and Polytechnic Society of the West Riding of Yorkshire. I, II, III, pp. 1—296; IV, pp. 337—544. Leeds, 1849—1857. 8vo.

(Wanting Vol. I, Meetings of June 4th and October 5th, 1840; also the remainder of Vols. III and IV.)

# Philosophical and Literary Society.

Laws and Regulations of the Leeds Philosophical and Literary Society. (Instituted the 14th of January, 1820.) Revised and corrected to May 7, 1841. *Leeds*. 8vo. pp. 20.

#### LEEDS.

## Philosophical and Literary Society.—Continued.

Reports of the Council of the Leeds Philosophical and Literary Society. V—VII, XI—XXXIII, XXXV—XXXVII, 1824-57. Leeds. 8vo.

Transactions of the Philosophical and Literary Society of Leeds, consisting of Papers read before the Society. I, I. London, 1837. 8vo.

A Guide to the Museum of the Leeds Philosophical and Literary Society. Leeds, 1854. 8vo. pp. 34.

#### LEICESTER.

## Leicester Literary and Philosophical Society.

Leicester Literary and Philosophical Society. Instituted June, 1835. Report of the Council presented to the annual general Meeting, assembled, June, 1855; and a selection of Papers read before the Society since its formation. Leicester, 1855. 8vo.

#### LIVERPOOL

# Historic Society of Lancashire and Cheshire.

Historic Society of Lancashire and Cheshire.—Proceedings and Papers. Sessions I—III, 1848-9, 1849-50, 1850-51. Liverpool, 1849-1851. 8vo.

Transactions of the Historic Society of Laneashire and Cheshire. VII, 1854-55; IX, 1856-57. London, 1855, 1857. 8vo.

# Liverpool Royal Institution.

Report of the State of the Liverpool Royal Institution, made to the Meeting of the Proprietors, 14th March, 1820. By B. A. Heywood, Esq. Liverpool, 1820. 8vo.

Liverpool Royal Institution. Report of the Committee presented to the annual Meeting, February 10th, 1837. Liverpool, 1837. Svo.

Idem for 1839-40, 1840-41, 1841-42, 1842-43, 1844, 1845, 1846, 1847, 1848, 1849, 1855-56, 1856-57. *Liverpool.* 8vo.

#### LIVERPOOL.

## Liverpool Royal Institution.—Continued.

Addresses delivered at the annual Meetings of the Liver-pool Royal Institution. 1825, 1829—1832, 1850—1852. Liverpool. 8vo.

#### LONDON.

## Allelodidactic Society.

Transactions of the Allelodidactic Society. I, I, II. London, 1847, 1848. 8vo.

## The Animals' Friend Society.

The Animals' Friend, or the Progress of Humanity. 5 Nos., from 1834 to 1841. London. Svo.

# Astronomical Society of London.

(See Royal Astronomical Society of London.)

# Mr. Bishop's Observatory, Regent's Park, London.

Astronomical Observations taken at the Observatory, South Villa, Inner Circle, Regent's Park, London. During the years 1839—1851. Under the direction of George Bishop, Esq., F. R. S. London, 1852. 4to.

Remarks and Notes to Mr. Bishop's Ecliptical Charts. London. 4to.

### Board of Trade.

First Number of Meteorological Papers published by authority of the Board of Trade. London, 1857. 4to.

# British Archæological Association.

The Journal of the British Archaeological Association, established in 1843, for the encouragement and prosecution of researches into the arts and monuments of the early and middle ages. I—IX, X, XXXVII, XXXVIII. London, 1846—1854.

The Archæological Journal. Published under the direction of the Central Committee of the British Archæological Association for the encouragement and prosecution of

## British Archæological Association.—Continued.

researches into the arts and monuments of the early and middle ages. I—VII. London, 1845—1850. 8vo.

Transactions of the British Archaeological Association, at its second annual Congress, held at Winchester, August, 1845, consisting of the Papers read at the several meetings, together with an account of the Exhibitions and Excursions made by the Association. London, 1846. 8vo.

Idem. Third annual Congress, held at Gloucester, August, 1846. *London*, 1848.

The British Archaeological Association [Programme and List of Officers and Members]. London, 1847. 8vo. pp. 12. Idem, Worcester Congress, 1848. 8vo. pp. 4.

# The British and Foreign Aborigines' Protection Society.

The Colonial Intelligencer or Aborigines' Friend. Comprising the Transactions of the Abor. Prot. Society, interesting intelligence concerning the Aborigines of various Climes, and Articles upon Colonial Affairs; with comments upon the Proceedings of Government and of Colonists towards Native Tribes. I—IV, 1847—1855. London. Svo.

Report of the Parliamentary Select Committee on Aboriginal Tribes (British Settlements). Reprinted with Comments by the Abor. Prot. Soc. 1837, with Annual Reports of the Abor. Prot. Soc. for 1838-1847. Report on the Indians of Upper Canada. Outline of a System of Legislation for securing protection to the Aboriginal Inhabitants of all Countries colonized by Great Britain. Extracts from the Papers and Proceedings of the Abor. Prot. Soc. from June, 1839, to Sept. 1841. New Zealand and its Native Population. Appeal of the British and Foreign Abor. Prot. Soc., and Proceedings at a Public Meeting held the 11th Nov. 1851, at the London Tayern, on the Kaffir War. London, 1837 **—**1851. Svo.

# The British and Foreign Aborigines' Protection Society.—Continued.

Some account of the Conduct of the religious Society of Friends towards the Indian Tribes in the Settlement of the Colonies of East and West Jersey and Pennsylvania, with a brief narrative of their Labors for the Civilization and Christian Instruction of the Indians, from the time of their settlement in America to the year 1843. London, 1844. 8vo.

#### British Government.

- Observations on days of unusual Magnetic Disturbance, made at the British colonial Magnetic Observatories, under the departments of the Ordnance and Admiralty. I, I, 1840—1841; II, 1842—1844. London, 1843—1851. 4to.
- Observations made at the Magnetical and Meteorological Observatory at St. Helena. I, 1840—1843. London, 1847. 4to.
- Observations made at the Magnetical and Meteorological Observatory at Toronto, Canada. I, 1840—1845; II, III, 1846-48. London, 1845—1857. 4to.
- Observations made at the Magnetical and Meteorological Observatory at Hobarton, in Van Diemen Land, and by the Antarctic Naval Expedition. I—III, 1841—1846. London, 1850—1853. 4to.
- Observations made at the Magnetical and Meteorological Observatory at the Cape of Good Hope. Printed under the superintendence of Lt. Col. Edward Sabine. Vol. I.—Magnetical Observations, 1841 to 1846. London, 1851. 4to.
- Results of Astronomical Observations made during the years 1834, 5, 6, 7, 8, at the Cape of Good Hope; being the completion of a Telescopic Survey of the whole surface of the visible Heavens, commenced in 1825, by Sir John F. W. Herschel. London, 1847. 4to.

## British and Foreign School Society.

The Educational Record, with the Proceedings at large of the British and Foreign School Society. I, No. 12. 1851. London. Svo.

### British Museum.

Report of the Commissioners appointed to inquire into the Constitution and Government of the British Museum, with Minutes of Evidence. 1847—1849, and Index. London, 1850. fol.

## The Camden Society.

The Political Songs of England, from the reign of John to that of Edward II. Edited and translated by Thomas Wright, Esq., M. A., F. S. A., &c. London, 1839. 4to.

A Chronicle of the first thirteen years of the reign of King Edward the Fourth. By John Warkworth, D. D. London, 1839. 4to.

Ecclesiastical Documents, viz: I. A brief History of the Bishoprick of Somerset from its foundation to the year 1174. II. Charters from the Library of Dr. Cox Macro. Now first published by the Rev. Joseph Hunter, F. S. A. London, 1840. 4to.

Annals of the first four years of the reign of Queen Elizabeth. By Sir John Hayward, Knt. D. C. L. Edited from a MS. in the Harleian Collection, by John Bruce, Esq., F. S. A. London, 1840. 4to.

Speculi Britanniæ Pars: an Historical and Chorographical description of the County of Essex. By John Norden. 1594. Edited from the original manuscript in the Marquess of Salisbury's Library at Hatfield, by Sir Henry Ellis. London, 1840. 4to.

Kemp's Nine Daies Wonder: performed in a dance from London to Norwich, with an Introduction and Notes, by Rev. Alexander Dyce. London, 1840. 4to.

Chronica Jocelini de Brakelonda, de rebus gestis Samsonis Abbatis Monasterii Sancti Edmundi. Nunc primum typis mandata curante Johanne Gage Rokewode. Londini, 1840. 4to.

## The Camden Society.—Continued.

- The Egerton Papers. A Collection of public and private Documents, chiefly illustrative of the times of Elizabeth and James I., from the original Manuscripts, the property of the Right Hon. Lord Francis Egerton, M. P., President of the Camden Society. Edited by J. Payne Collier, Esq., F. S. A. London, 1840. 4to.
- The Chronicle of William de Rishanger, of the Barons' Wars. The Miracles of Simon de Montfort. Edited from Manuscripts in the Cottonian Library, by James Orchard Halliwell, Esq., F. R. S., &c. London, 1840. 4to.
- Narratives illustrative of the Contests in Ireland in 1641 and 1690. Edited by Thomas Crofton Croker. London, 1841. 4to.
- The Second Book of the Travels of Nicander Nucius, of Corcyra. Edited from the original Greek MS. in the Bodleian Library, with an English translation, by the Rev. J. A. CRAMER, D. D. London, 1841. 4to.
- The Latin Poems commonly attributed to Walter Mapes. Collected and edited by Thomas Wright, Esq., M. A., F. S. A., etc. *London*, 1841. 4to.
- The Private Diary of Dr. John Dee, and the Catalogue of his Library of Manuscripts, from the original Manuscripts in the Ashmolean Museum at Oxford, and Trinity College Library, Cambridge. Edited by James Orchard Halliwell, Esq. London, 1842. 4to.
- Rutland Papers. Original Documents illustrative of the Courts and Times of Henry VII. and Henry VIII. Selected from the private Archives of his Grace the Duke of Rutland, &c. &c. &c. By WILLIAM JERDAN, F. S. A., etc. London, 1842. 4to.
- An Apology for Lollard Doctrines, attributed to Wicliffe. Now first printed from a Manuscript in the Library of Trinity College, Dublin. With an Introduction and Notes, by James Henthorne Todd, D. D., V. P. R. I. A., etc. London, 1842. 4to.
- Three Early English Metrical Romances, with an Introduc-

# The Camden Society.—Continued.

tion and Glossary. Edited from a MS. in the possession of J. J. Blackburne, Esq., M. P. By John Robson, Esq. London, 1842. 4to.

- The Diary of Dr. Thomas Cartwright, Bishop of Chester; commencing at the time of his elevation to that See, August, 1686; and terminating with the Visitation of St. Mary Magdalene College, Oxford, October, 1687. Now first printed from the original MS. in the possession of Rev. Joseph Hunter, F. S. A. London, 1843. 4to.
- Promptorium Parvulorum sive Clericorum, Lexicon Anglo-Latinum Princeps. Auctore Fratre Galfrido, Grammatico dicto, e predicatoribus Lenne Episcopi, Northfolciensi, A. D. circa MCCCCXL. Olim e prelis Pynsonianis editum, nunc ab integro, commentariolis subjectis, ad fidem codicum recensuit Albertus Way. Tomns Prior. Londini, 1843. 4to.
- A Contemporary Narrative of the Proceedings against Dame Alice Kyteler, prosecuted for Sorcery in 1324, by RICHARD DE LEDREDE, Bishop of Ossory. Edited by Thomas Wright, Esq., M. A., F. S. A., &c. London, 1843. 4to.
- Three Chapters of Letters relating to the Suppression of Monasteries. Edited from the originals in the British Museum, by Thomas Wright, Esq., M. A., F. S. A., etc. London, 1843. 4to.
- Original Letters of Eminent Literary Men of the Sixteenth, Seventeenth, and Eighteenth Centuries: with Notes and Illustrations, by Sir Henry Ellis, K. H., F. R. S., etc. London, 1843. 4to.
- Chroniques de London, depuis l'an 44 Hen. III. jusqu' à l'an 17 Edw. III. Edited from a MS. in the Cottonian Library, by George James Aungier. London, 1844. 4to.
- The Thornton Romances. The Early English Metrical Romances of Percival, Isumbras, Eglamour, and Degrevant. Selected from Manuscripts at Lincoln and Cam-

## The Camden Society.—Continued.

bridge. Edited by James Orchard Halliwell, Esq., F. R. S., etc. London, 1844. 4to.

- Three Books of Polydore Vergil's English History, comprising the reigns of Henry VI., Edward IV., and Richard III., from an early translation preserved among the MSS. of the old Royal Library in the British Museum. Edited by Sir Henry Ellis, K. H. London, 1844. 4to.
- Correspondence of Robert Dudley, Earl of Leycester, during his Government of the Low Countries in the years 1585 and 1586. Edited by John Bruce, F. S. A. London, 1844. 4to.
- Verney Papers. Notes of Proceedings in the Long Parliament, Temp. Charles I. Printed from original pencil Memoranda taken in the House by Sir Ralph Verney, Knight, and now in the possession of Sir Harry Verney, Bart. Edited by John Bruce, Esq., F. S. A. London, 1845. 4to.
- The Autobiography of Sir John Bramston, K. B., of Skreens, in the Hundred of Chelmsford. Now first printed from the original MS. in the possession of his lineal descendant, Thomas William Bramston, Esq., one of the Knights of the Shire for South Essex. London, 1845. 4to.
- Letters from James Earl of Perth, Lord Chancellor of Scotland, etc., to his Sister the Countess of Erroll and other members of his family. Edited by WILLIAM JERDAN, M. R. S. L. London, 1845. 4to.
- De Antiquis Legibus Liber. Chronica Maiorum et Vicecomitum Londoniarum et quedam, que contingebant temporibus illis ab Anno MCLXXVIII° ad Annum MCCLXXIV<sup>m</sup>; cum Appendice. Nunc primum typis mandata curante Thoma Stapleton. Londoniis, 1846. 4to.
- The Chronicle of Calais in the reigns of Henry VII. and Henry VIII. to the year 1540. Edited from MSS. in

## The Camden Society.—Continued.

the British Museum, by John Gough Nichols, F. S. A. London, 1846. 4to.

- Polydore Vergil's English History, from an early translation preserved among the MSS. of the old Royal Library in the British Museum. Vol. I. Containing the first eight Books, comprising the period prior to the Norman Conquest. Edited by Sir Henry Ellis, K. H. London, 1846. 4to.
- A Relation, or rather a true Account, of the Island of England; with sundry particulars of the customs of these People, and of the Royal Revenues under King Henry the Seventh, about the year 1500. Translated from the Italian, with Notes, by Charlotte Augusta Sneyd. London, 1847. 4to.
- The Camden Miscellany. Volume the First: Containing, Register and Chroniele of the Abbey of Aberconway. Chronicle of the Rebellion in Lincolnshire, in 1470. Bull of Pope Innocent VIII. on the Marriage of Henry VII. with Elizabeth of York. Journal of the Siege of Rouen, in 1591. Letter of George Fleetwood, describing the Battle of Lntzen and death of Gustavus Adolphus. Diary of Dr. Edward Lake, Chaplain and Tutor to the Princesses Mary and Anne, 1677—1678. London, 1847.
- Documents relating to the Foundation and Antiquities of the Collegiate Church of Middleham in the County of York; with an Historical Introduction, and Incidental Notices of the Castle, Town, and Neighborhood. By the Rev. William Athill, Canon and Sub-Dean of Middleham. London, 1847. 4to.,

# Cavendish Society.

Lists of Members, etc. of the Cavendish Society. London.

# Chemical Society.

Memoirs and Proceedings of the Chemical Society of London. Vols. I—III, 1841—1848. London, 1843—1848. 8vo.

## Chemical Society.—Continued.

The Quarterly Journal of the Chemical Society of London. I—V, 1849—1853; VI, I, III, IV, 1853—1854; VII, I, II, IV, 1854; VIII, I—III, 1855; IX, X, 1857, 1858. London. 8vo.

## Entomological Society.

Transactions of the Entomological Society of London. Vol. I, Part I. London, 1807. 8vo.

The Transactions of the Entomological Society of London. I.-V, 1834—1839. London, 1836—1849. 8vo.

Address delivered at the Anniversary Meeting of the Entomological Society of London on the 24th January, 1848. By William Spence, Esq., F. R. S. London, 1848. Svo.

## Ethnological Society.

Journal of the Ethnological Society of London. I, 1848; II, 1850; III, 1852; IV, 1856. London. 8vo.

A Mannal of Ethnological Inquiry; being a series of Questions concerning the Human Race, prepared by a Subcommittee of the British Association for the Advancement of Science, appointed in 1851, and adapted for the use of Travellers and others, in studying the Varieties of Man. London, 1852. 8vo. pp. 15.

Remarks on the Nature, Objects, and Evidences of Ethnological Science: an Address read at the Ethnological Society, at a Conversazione, on Wednesday, June 4, 1851. By Richard Cull. London. 8vo. pp. 11.

Address to the Ethnological Society of London, delivered at the annual Meeting on the 25th of May, 1855, by John Conolly, President; and a Sketch of the recent Progress of Ethnology, by Richard Cull. London. 8vo.

The Regulations of the Ethnological Society of London. 1850 & 1855. London. 8vo. pp. 16 & 15.

List of the Ethnological Society of London on the 25th May, 1855. London, 1855. 8vo. pp. 7.

List of Officers and Programme. 8vo. pp. 2.

## Geological Society.

Transactions of the Geological Society of London. Second series. II—VII, 1826—1856. London. 4to.

Proceedings of the Geological Society of London. I—III, 1826—1842. London, 1834—1842. Svo.

The Quarterly Journal of the Geological Society of London. Edited by the Assistant Secretary of the Geological Society. Part I.—Proceedings of the Geological Society. Part II.—Miscellaneous. I—XI, 1843—1855; XII, I, 1856; XIII, I, IV, 1857. London. 8vo.

Address delivered at the Anniversary Meeting of the Geological Society of London on the 20th of February, 1857. By Col. J. E. Portlock, R. E., &c., President of the Society. *London*, 1857. 8vo.

## Hakluyt Society.

The History of the great and mighty Kingdom of China and the Situation thereof. Compiled by Juan Gonzalez DE Mendoza. Edited by Sir Geo. T. Staunton, Bart. London, 1853. 8vo.

# Horticultural Society.

Transactions of the Horticultural Society of London. I—VII. London, 1812—1830. 4to.

Journal of the Horticultural Society of London. I—IX, 1846—1854. London. 8vo.

Charters and Bye-laws of the Horticultural Society of London, London, 1816. 4to.

Additional Bye-laws of the Horticultural Society of London, London, 1817. 4to.

List of the Horticultural Society of London. January, 1818; May, 1818; January, 1819; May, 1819; May, 1820; May, 1821; May, 1822; May, 1823; May, 1824; March, 1825; May, 1825; May, 1826. London. 4to.

Hortienltural Society of London. Report of the Garden Committee on the Formation and Progress of the Garden. March 31, 1823; March 31, 1824; March 31, 1825. London, 1823, 1824, 1825. 4to.

# Institute of Actuaries of Great Britain and Ireland.

Constitution and Laws of the Institute of Actuaries of Great Britain and Ireland, and List of Members. 1852, 1853. London, 1852. 8vo.

List of Members of the Institute of Actuaries of Great Britain and Ireland. 1853; 1854-55. London, 1853, 1854. 8vo.

The Assurance Magazine and Journal of the Institute of Actuaries. III, I; IV, I, II, IV; V—VII, 1852—1858. London. 8vo.

## Linnean Society.

Transactions of the Linnean Society. I—XXI, XXII, 1, 11, 1791—1857. London. 4to.

Proceedings of the Linnean Society of London. I, II, 1838—1855. London, 1849, 1855. Svo.

Journal of the Proceedings of the Linnean Society. Botany: I, II, I, II. Zoology: I, II, I, II. London, 1857. Svo.

List of the Linnean Society of London. 1844, 1848, 1851. 4to. 1852, 1854, 1855, 1856, 1857. 8vo.

Address of Thomas Bell, Esq., V. P. R. S., etc., the President, together with Obituary Notices of deceased Members. By John J. Bennett, Esq., F. R. S., the Secretary. Read at the Anniversary Meeting of the Linnean Society on Thursday, May 24, 1854. Idem, read May 24, 1855, and May 25, 1857. London, 1854, 1855, 1857. Svo.

# London Electrical Society.

The Transactions and the Proceedings of the London Electrical Society from 1837 to 1840. London, 1841. 4to.

# Microscopical Society.

The Transactions of the Microscopical Society of London. I, II, III, I, II, 1840—1851. London, 1844—1851. 8vc.

# Museum of Practical Geology and Geological Survey.

Memoirs of the Geological Survey of Great Britain, and of the Museum of Practical (Economic) Geology in London. I; II, I. London, 1846—1848. Svo.

Memoirs of the Geological Survey of the United Kingdom. Figures and Descriptions illustrative of British Organic Remains. Decades I—VII, 1849—1853. London. roy. Syo.

Prospectus of the Metropolitan School of Science applied to Mining and the Arts. 2d Session, 1852-53; 3d Session, 1853-54. *London*, 1852, 1853. Svo.

Records of the School of Mines and of Science applied to the Arts. I. 1—IV. London, 1852, 1853. Svo.

Industrial Instruction on the Continent. (Being the Introductory Lecture of the Session 1852—1853.) By Lyon Playfair. London, 1852. Svo.

On the Value of an extended Knowledge of Mineralogy and the Processes of Mining. (Being the Introductory Lecture to the Course of Mineralogy and Mining.) By WARINGTON W. SMYTH, M. A. London, 1852. 8vo.

On the Educational Uses of Museums. (Being the Introductory Lecture of the Session of 1853—1854.) By EDWARD FORBES, F. R. S., etc. *London*, 1853. 8vo.

# Numismatic Society.

The Numismatic Chronicle, and Journal of the Numismatic Society. Edited by John Yonge Akerman. XL—XLIII, 1848, 1849. London. 8vo.

# Philological Society.

Proceedings of the Philological Society. Vols. I—V, 1842—1852. London, 1844—1854. Svo.

# Photographic Society.

The Journal of the Photographic Society of London. Containing the Transactions of the Society, and a general record of Photographic Art and Science. IV, 1858. London. Svo. (Wanting No. 62.)

## Ray Society.

- Memorials of John Ray, consisting of his Life by Dr. Derham; Biographical and Critical Notices by Sir John E. Smith, and Cuvier and Dupetit-Thouars. With his Itineraries, etc. London, 1846. 8vo.
- The Correspondence of John Ray, consisting of selections from the Philosophical Letters published by Dr. Derham, and Original Letters of John Ray in the collection of the British Museum. *London*, 1848. Svo.
- A Monograph of the British Nudibranchiate Mollusca: with figures of all the species. By Joshua Alder and Albany Hancock. I—V. London, 1844, 1851. 4to.
- A Monograph of the British Naked-eyed Medusæ: with figures of all the species. By Edward Forbes. London, 1848. 4to.
- A Monograph on the sub-class Cirripedia, with figures of all the species. By Charles Darwin. The Lepadidæ; or Pedunculated Cirripedes. *London*, 1851. 8vo.
- A Monograph on the sub-class Cirripedia, with figures of all the species. By Charles Darwin, F. R. S., F. G. S. The Balanidæ (or Sessile Cirripedes); The Verrucidæ, etc. etc. etc. London, 1854. Svo.
- Reports on the Progress of Zoology and Botany. 1841, 1842. London, 1845. 8vo.
- Reports on Zoology for 1843, 1844. London, 1847. 8vo. Reports and Papers on Botany. London, 1846, 1849. 2 vols. 8vo.
- Outlines of the Geography of Plants. By F. J. F. MEYEN. London, 1846. 4to.
- On the Alternation of Generations; or, the propagation and development of animals through alternate generations: a peculiar form of fostering the young in the lower classes of animals. By J. J. S. Steenstrup. Translated by Geo. Busk. London, 1845. 8vo.
- The Organization of Trilobites, deduced from their living affinities; with a systematic review of the species hitherto described. By Hermann Burmeister. London, 1846.

  4to.

## Ray Society.—Continued.

Elements of Physiophilosophy. By Lorenz Oken, M. D. Professor of Natural History at the University of Zurich, etc. etc. From the German by Alfred Tulk, Member of the Royal College of Surgeons of England. London, 1847. 8vo.

Bibliographia Zoologiæ et Geologiæ: a Catalogue of all books, tracts, and memoirs on zoology and geology. By Louis Agassiz. I—IV. London, 1848—1854. 8vo.

The Natural History of the British Entomostraea. By W. Baird. London, 1850. 8vo.

The British species of Angiocarpous Lichens, elucidated by their sporidia. By the Rev. W. A. Leighton. London, 1851. 8vo.

Botanical and Physiological Memoirs. Consisting of: I.—
The Phenomenon of Rejuvenescence in Nature, especially in the life and development of Plants. By Dr. A. Braun. Translated by A. Henfrey, F. R. S., etc. II.—
On the Animal Nature of the Diatomeæ, with an organographical revision of the Genera established by Kützing. By Prof. G. Meneghini. Translated by Christopher Johnson, M. R. C. S. E. III.—An Abstract of the Natural History of Protocæcus Pluvialis. By Dr. Ferdinand Cohn. Translated by George Busk, F. R. S., etc. Edited by Arthur Henfrey, F. R. S., F. L. S. London, 1853. 8vo.

# Redhill Observatory.

A Catalogue of 3735 Circumpolar Stars observed at Redhill in the years 1854, 1855, and 1856, and reduced to mean positious for 1855.0, by RICHARD CHRISTOPHER CARRINGTON. London, 1857. royal 8vo.

# Royal Agricultural Society of England.

The Journal of the Royal Agricultural Society of England. I—XVIII, 1840—1857. London. Svo.

Index to the Journal of the Royal Agricultural Society of England for Vols. I—XVI. London, 1855. 8vo.

## Royal Asiatic Society.

- The Journal of the Royal Asiatic Society of Great Britain and Ireland. I—X, XI. I, XII, XIII, XV. II, 1834—1855. London. Svo.
- Royal Asiatic Society of Great Britain and Ireland. The Twenty-sixth, Twenty-ninth, and Thirty-second annual Reports. 1849, 1852, 1855. London. 8vo.
- Royal Asiatic Society of Great Britain and Ireland. List of Members, Committees, etc. 1849, 1855. London. 8vo.

## Royal Astronomical Society.

- Regulations of the Astronomical Society of London: established February 8, 1820. London, 1820. 12mo. pp. xv and 32.
- Memoirs of the Astronomical Society of London. I—XXIV, 1822—1855; XXV, I, 1856. London. 4to.
- Monthly Notices of the Royal Astronomical Society, containing papers, abstracts of papers, and reports of the proceedings of the Society. I—XVII, 1831—1857. London. 8vo.

# Royal Geographical Society.

- The Journal of the Royal Geographical Society of London. 1830—1831, and I—X, 1831—1841. Index. XI, I; XII, I; XIV—XX, 1844—1851. Index. XXI—XXVI, 1851—1856. London. 8vo.
- Proceedings of the Royal Geographical Society of London. Vols. I, 1—IV, VI, VIII, X; II. 1855—1858. London. 8vo.
- Addresses at the anniversary Meetings of the Royal Geographical Society. 1841; 1844; 1850-56. London. 8vo.
- Geographical Notice to the Royal Illustrated Atlas. By Dr. Norton Shaw. London. Svo. pp. 8.
- The Origin, Objects, and Progress of the Royal Geographical Society. *London*. 8vo. pp. 7.
- Report of the Council. Read at the Anniversary Meeting on the 28th May, 1855. London. Svo. pp. viii.

## Royal Geographical Society.—Continued.

African Discovery. A Letter addressed to the President and Council of the Royal Geographical Society. By Augustus Petermann. London, 1854. 8vo. pp. 16.

List of Members of the Royal Geographical Society, 1849. London. 8vo. pp. 12.

Accessions to the Library of the Royal Geographical Society to May, 1853. London. 8vo. pp. xxii.

Balloting List, 28th May, 1855.

## Royal Institution of Great Britain.

Notices of the Meetings of the Members of the Royal Institution of Great Britain. Vols. I, II, 1851—1858. London. Svo.

The Royal Institution of Great Britain. A List of the Members, Officers, etc., with the Report of the Visitors for the years 1832, 1850—1856. London. 8vo.

The Journal of Science and the Arts. Edited at the Royal Institution of Great Britain. Published quarterly. I—VI, 1816—1819. The Quarterly Journal of Literature, Science, and the Arts. VII—XXIX, 1819—1830. London. Svo.

(The latter obtained by purchase.)

# Royal Society.

Philosophical Transactions, giving some account of the present undertakings, studies, and labors, of the ingenious in many considerable parts of the world. I—LXV, 1665—1775. London. 4to.

Philosophical Transactions of the Royal Society of London. LXVI—CXLVI, 1776—1856. London. 4to.

(Wanting 1831; 1843; 1845; 1847, 11, 111, 111; 1848.)

The Philosophical Transactions and Collections, abridged and disposed under general heads. I—XI, 1732—1756. London. 4to.

A General Index to the Philosophical Transactions. From the First to the end of the Seventieth Volume. By PAUL HENRY MATY, M. A., F. R. S. London, 1787. 4to.

## Royal Society .- Continued.

- Abstracts of the Papers communicated to the Royal Society of London. Nos. 8—15, 17, 18, 27, 35, 36, 39, 41, 45, 47, 55, 1831—1842; V (wanting pp. 495—802), 1843—1850; VI, 1850—1854. London. 8vo.
- Proceedings of the Royal Society of London (being a continuation of the series entitled, "Abstracts of the Papers communicated to the Royal Society of London"). Vol. VII, 1854-55; VIII, 1856-57. London, 1856, 1857. 8vo. (Wanting VII, Nos. 2, 3.)
- A Review of the Works of the Royal Society of London; containing animadversions on such of the papers as deserve particular observation. In eight Parts, under the several heads of Arts, Antiquities, Medicine, Miracles, Zoophytes, Animals, Vegetables, Minerals. By John Hill. London, 1751. 4to.
- Diplomata et Statuta Regalis Societatis Londini, pro Scientiâ Naturali promovendâ. Jussu Præsidis et Concilii edita. Londini, 1819. 4to.
- The History of the Royal Society of London for the improving of Natural Knowledge. By Thomas Spratt, D. D. London, 1722. 4to.
- History of the Royal Society from its Institution to the end of the Eighteenth Century. By Thomas Thomson, M. D., F. R. S. London, 1812. 4to.
- A History of the Royal Society, with Memoirs of the Presidents. Compiled from authentic documents, by Charles Richard Weld. In two volumes. *London*, 1848. 8vo.
- Addresses read at the anniversary Meetings of the Royal Society. 1837, 1852, 1853, 1854. London. 8vo.
- Observations on the Address by the President, and on the Statement by the Council to the Fellows of the Royal Society, respecting Mr. Panizzi, read at their general Meeting, Nov. 30, 1837. [By A. Panizzi.] With Defence of the Resolution for omitting Mr. Panizzi's Bibliographical Notes from the Catalogue of the Royal Society; and other Traets relating to the Royal Society. London. 8vo.

## Royal Society .- Continued.

Lists of Fellows of the Royal Society. 1853, 1855, 1856.

London. 4to.

## Society of Antiquaries of London.

Proceedings of the Society of Antiquaries of London. Vols. I, XVI, XVII; II; III; IV, XLVI. London, 1848—1857. Svo.

Archæologia: or miscellaneous Tracts relating to Antiquity, published by the *Society of Antiquaries of London*. Vols. XXXIII—XXXVII. London, 1849—1857. 4to.

Supplement to the Description of an Astrological Clock, belonging to the Society of Autiquaries. *London*, 1851. 4to.

Lists of the Society of Antiquaries of London. 1853, 1854, 1855, 1856, 1857. London. 8vo.

# Society for the Encouragement of Arts, Manufactures, and Commerce.

Transactions of the Society, instituted at London, for the Encouragement of Arts, Manufactures, and Commerce; with the premiums offered. Vols. I.—LIV, 1806—1843. London. 8vo.

(Wanting IV.)

Transactions of the Society of Arts for 1846-7; 1847-8, I. H. London, 1847, 1849. 4to.

The Journal of the Society of Arts, and of the Institutions in Union. I—VI, 1852—1858. London, 1853—1858. royal 8vo.

(Wanting Nos. 18, 19, 26, 27, 193—201.)

Rules and Orders of the Society instituted at London for the Encouragement of Arts, Manufactures, and Commerce. London, 1812. 8vo. pp. 39.

Report of the Select Committee. 1841. London. 8vo.

List of the Officers of the Society and Premiums for the Sessions 1832-1833, 1833-1834; 1836-1837, 1837-1838.London, 1832, 1836. 8vo.

Official Catalogue of the Educational Exhibition opened in

Society for the Encouragement of Arts, Manufactures, and Commerce.—Continued.

St. Martin's Hall, July 4, 1854. Edited by G. W. TAPP. London, 1854. Svo.

Lectures on the Results of the Great Exhibition, 1851. Lecture I.—The General Bearing of the Great Exhibition on the Progress of Art and Science. By WILLIAM Whenell, D. D., F. R. S. H.-Mining, Quarrying, and Metallurgical Processes and Products. By Sir HENRY DE LA BECHE, C. B., F. R. S. III.—On the Raw Materials from the Animal Kingdom. By Richard OWEN, F. R. S. IV.—Chemical and Pharmaceutical Processes and Products. By Jacob Bell, Esq., M. P. V.— On the Chemical Principles involved in the Manufactures of the Exhibition, as indicating the necessity of Industrial Instruction. By Lyon Playfair, C. B., F. R. S. VI.-On Substances used as Food, illustrated by the Great By John Lindley, Ph. D., F. R. S. Exhibition. don. 8vo.

# Society for the Illustration and Encouragement of Practical Science.

The Magazine of Popular Science, and Journal of the Useful Arts. No. I, 1836. London. Svo.

# Statistical Society.

Journal of the Statistical Society of London. I—XX, 1839-57. London. 8vo.—General Index to the first fifteen Volumes. London, 1854. 8vo.

(Wanting XIII & XVI, 1.)

First Report of the Committee on Beneficent Institutions. I.—The Medical Charities of the Metropolis. London, 1857. 8vo.

Regulations and List of Fellows of the Statistical Society of London, 1838. London, 1838. 8vo.

List of Fellows of the Statistical Society of London. Sessions 1854-55, 1856, 1857-58. London. Svo.

Objects and Regulations of the Statistical Society of London. 1855. Svo.

## Statistical Society.—Continued.

Twentieth anniversary Meeting of the Statistical Society. Session 1853-54. Svo.

## Zoological Society.

- Proceedings of the Committee of Science and Correspondence of the Zoological Society of London. I, II, 1830—1832. London. Svo.
- Proceedings of the Zoological Society of London. Parts I—XXV, 1833—1857. (Parts XVII—XXV with Plates.) London. 8vo.
- Transactions of the Zoological Society of London. I—III, 1835—1849; IV, I—IV, 1850-57. London. 4to.
- A List of the Fellows and Honorary, Foreign, and Corresponding Members of the Zoological Society of London, 1842. List of the Animals in the Gardens of the Zoological Society, with notices respecting them, and a plan of the Gardens, 1833. The Charter, By-Laws, and Regulations of Zool. Soc., 1834. Reports of the Council and Anditors of the Zool. Soc., 1831, 1835, 1838, 1839, 1841, 1844, 1845. (In 1 vol.) London. 8vo.

#### Miscellanea.

- Annals of Natural History. See Magazine of Zoology and Botany.
- Annals of Philosophy; or, Magazine of Chemistry, Mineralogy, Mechanics, Natural History, Agriculture, and the Arts. By Thomas Thomson. I—XXVIII, 1813—1826. London. Svo.
- Anti-Slavery Monthly Reporter. II, No. 17, 1828. London. 8vo.
- The Archæologist, and Journal of Antiquarian Science. I, 1841—1842. London. 8vo.
- The Architectural Magazine, and Journal of improvement in Architecture, Building, and Furnishing, and in the various arts and trades connected therewith. Conducted by J. C. Loudon, I—V. London, 1834—1838. 8vo.

## Miscellanea.—Continued.

- The Artizan. A Monthly Journal of the Operative Arts. IX—XIII, 1851—1855. London. 4to. (Wanting XIII, No. 149.)
- The Art Journal. New series. IX—XV, 1847—1853. London. 4to.—And Illustrated Catalogue. 1851. 4to.
- The Asiatic and Colonial Quarterly Journal. XI, No. 17, 1850. London. 8vo.
- The Athenaum; Journal of Literature, Science, and the Fine Arts. 1836—1857. London. 4to.
- The Banker's Magazine, Journal of the Money Market, and Railway Digest. V, No. 25, 1846; XI—XIV, 1851—1854. London. 8vo.
- The British Quarterly Review. I—XXII, 1845—1855. London. 8vo.
- The Canadian, British American, and West Indian Magazine. I, IV—VI. London, 1839. 8vo.
- The Chemical Gazette, or Journal of Practical Chemistry, in all its applications to Pharmacy, Arts, and Manufactures. Conducted by William Francis. VIII, IX, 1850, 1851; XII—XV, 1854—1857. London. 8vo. (Wanting Nos. 276, 282, 286, 307, 332, 334, 358.)
- The Christian Observer. Conducted by Members of the Established Church. New series. No. 183. London. Syo.
- The Christian Reformer, or Unitarian Magazine and Review. IV, No. 39, 1837; IX, No. 99, 1842. London. 8vo.
- The Civil Engineer and Architect's Journal. I—XVIII. London, 1837-55. London. 4to.
  - (Wanting XIII; XV, Jan., Nov., Dec.; XVI, Jan., Feb.; XVII, May, Dec.; XVIII, Title and Index.)
- Colburn's United Service Magazine and Naval and Military Journal. 1851—1854. London. 8vo.
- The Colonial Magazine and Foreign Miscellany. XVI, Nos. 63, 65, 66; XVII, Nos. 1—4. 1849. London.
- The Critical Review, or Annals of Literature. Series the

#### Miscellanea.—Continued.

Third, IV—XXIV, 1805—1812. Series the Fourth, I—IV, 1812, 1813. London. 8vo.

The Dublin Review. I—XLIV, 1836—1858. London. 8vo.

(Wanting Nos. 78, 79.)

- Encyclopædia Britannica, or Dictionary of Arts, Sciences, and General Literature. Eighth edition. With extensive improvements and additions, and numerous engravings. I—XVI. London, 1853—1858. 4to.
- Encyclopædia Metropolitana; or Universal Dictionary of Knowledge, on an original plan: comprising the twofold advantage of a philosophical and an alphabetical arrangement, with appropriate engravings. I—XXVI. London, 1845. 4to.
- Encyclopædia Metropolitana. Second Division.—Applied Sciences. Part XXXIV. Meteorology by George Harvey, Esq. London, 1849. 4to.
- The English Cyclopedia. A new Dictionary of Universal Knowledge. Conducted by Charles Knight. Geography. I—III. London, 1854-5. 4to.
- The European Magazine. XXXVII, March, 1800. London. 8vo.
- The Farmers' Magazine, and Monthly Journal of Proceedings affecting the Agricultural Interest. Old series. XVII, No. 2, 1842. *London*. 8vo.
- The Foreign Quarterly Review. I—XXXVII, 1827—1846. London. 8vo.
- The Foreign Review and Continental Miscellany. I—V. London, 1828—1830. 8vo.
- Frazer's Magazine for Town and Country. XLIII—XLVI, XLVIII, 1851—1853. London. Svo.
- The Gentleman's Magazine. New series. I—XLII, 1834—1854. London. 8vo.

(Wanting XXXVIII.)

Household Words, a Weekly Journal. Conducted by Charles Dickens. I, II. London and New York, 1850, 1851. 8vo.

### Miscellanea.—Continued.

- The Illustrated London News. I, 1842; II, 1843; IV, 1844; VI, 1845; XX, XXI, 1852. London. fol.
- The Journal of Botany, being a second series of the Botanical Miscellany; containing Figures and Descriptions of such Plants as recommend themselves by their novelty, rarity, or history, or by the uses to which they are applied in the Arts, in Medicine, and in Domestic Economy; together with occasional Botanical notices and information. By William Jackson Hooker. I—IV. London, 1834—1842. 8vo.
- A Journal of Natural Philosophy, Chemistry, and the Λrts. Illustrated with engravings. By WILLIAM NICHOLSON. I—XXXVI, 1802—1813. London. 8vo.
- The Journal of Psychological Medicine and Mental Pathology, Nos. I, II, III. New series. Edited by Forbes Winslow. *London*, 1856. 8vo.
- Labourers' Friend Magazine. XI, No. 128, 1841. London. Svo.
- The Lancet. A Journal of British and Foreign Medicine, Physiology, Surgery, Chemistry, Criticism, Literature, and News. 1852—1856. *London*. royal 8vo.
- The London and Edinburgh Philosophical Magazine and Journal of Science. Conducted by Sir David Brewster, Richard Taylor, and Richard Phillips. I—XVI. New and united series of the Philosophical Magazine and Journal of Science. 1832—1840. London. 8vo.
- The London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science. Conducted by Sir David Brewster, Richard Taylor, Richard Phillips, and Robert Kane. XVII—XXXVII. New and united series of the Philosophical Magazine, Annals of Philosophy, and Journal of Science. 1840—1850. London. Svo.
- The London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science. Conducted by Sir David Brewster, Richard Taylor, Richard Phillips, Sir

## Miscellanea.—Continued.

- ROBERT KANE, and WILLIAM FRANCIS. Fourth series. I—XV, 1851—1858. London. 8vo.
- The London Geological Journal and Record of Discoveries in British and Foreign Palæontology. I—III, 1846–47. London. 8vo.
- The London Journal of Arts and Sciences; containing reports of all new Patents, with a description of their respective principles and properties: also, original communications on subjects connected with Science and Philosophy; particularly such as embrace the most recent inventions and discoveries in Practical Mechanics. By W. Newton. I—XIV, 1820—1827. Second series. I—IX, 1828—1832. London. 8vo.
- The London Journal of Arts and Sciences, and Repertory of Patent Inventions. Conducted by W. Newton. Conjoined series. I—XXXIX, 1832—1851. London. Svo.
- The London Polytechnic Magazine and Journal of Science, Literature, and the Fine Arts. January—June, 1844. Edited by Thomas Stone, M. D. London, 1844. Syo.
- The Magazine of Natural History, and Journal of Zoology, Botany, Mineralogy, and Geology. Conducted by J. C. Loudon. I—IX, 1829—1836. London. Svo.
- The Magazine of Natural History. Conducted by Edward Charlesworth. I—IV. New series. 1837—1840. London. Svo.
- Magazine of Zoology and Botany. Conducted by Sir W. Jardine, P. J. Selby, and Dr. Johnston. I, II. London, 1837, 1838. 8vo.
- The Annals and Magazine of Natural History, including Zoology, Botany, and Geology (being a continuation of the "Magazine of Zoology and Botany," and of Loudon and Charlesworth's Magazine of Natural History). Conducted by Sir W. Jardine, P. J. Selby, Dr. Johnston, Sir W. J. Hooker, and Richard Taylor. I—XX,

#### Miscellanea. — Continued.

1838—1847. Second series. I—XXII, 1848—1857 London. Svo.

(Wanting: Second series, XI, Jan. & Feb.)

The Mechanics' Magazine. Edited by R. A. Brooman. I, Nos. 1—4, 12; V, 399; XVII, 468, 534; XXIII, 633; XXVII, 721—729; LXII—LXVII. London, 1855—1857. 8vo.

(Wanting also Nos. 1638, 1639, 1640, 1711, 1780, 1837, 1843.)

- The Medico-Chirurgical Review and Periscope of Practical Medicine. New series. Fascic. III, No. 18, 1828. London. Svo.
- The Mirror of Literature, Amnsement, and Instruction. XXII, No. 627, 1833. London. 8vo.
- The Monthly Magazine. XLIX, IV. London, 1820. 8vo. The Monthly Review, or New Literary Journal. A periodical work, giving an account, with proper abstracts of, and extracts from, the new books, pamphlets, &c., as they come out. By several hands. I—LXXXI, 1749—1789. London. 8vo.
- A General Index to the Monthly Review, from its commencement to the Seventieth volume. In two volumes. London, 1786. 8vo.
- A Continuation of the General Index to the Monthly Review; commencing at the Seventy-first, and ending with the Eighty-first volume. *London*, 1796. 8vo.
- The Monthly Review, or Literary Journal, enlarged. I—LXXXVIII, 1790—1819. London. 8vo.
- The Natural History Review: a quarterly journal including the Transactions of the Belfast Natural History and Philosophical Society, Cork; Cuvierian Society, Dublin; Natural History Society, Dublin; University Zoological Association; and the Literary and Scientific Institution of Kilkenny. For the sessions 1853—1856. I, II, III, I. London, 1854—1856. 4to.
- The Nautical Magazine, and Naval Chronicle. I, Nos. 7,

## Miscellanea.—Continued.

- 10, 1837; XVI, No. 4, 1847; XXI, Nos. 6, 8, 1852. London. 8vo.
- Notes and Queries: a medium of inter-communication for literary men, artists, antiquaries, genealogists, &c. I—VIII, X, III—VI, XI, XII, 1849—1855. London. 4to.
- The Patent Journal and Inventors' Magazine. XII, pp. 105—116. 1851. London. 4to.
- The Penny Cyclopædia of the Society for the Diffusion of Useful Knowledge. I—XXVII, 1833—1843. Supplement, I, pp. 1—192, 241—384, 433—576. London. royal 8vo.
- The Penny Magazine of the Society for the Diffusion of Useful Knowledge. I—IX, 1832—1840. London. royal 8vo. New series. I—V, 1841—1845. London. 8vo.
- The Philosophical Magazine, or Annals of Chemistry, Mathematics, Astronomy, Natural History, and General Science. By RICHARD TAYLOR and RICHARD PHILLIPS. I—XI. London, 1827—1832. 8vo.
- Punch, or the London Charivari. XXIV. London, 1853. 4to. (Wanting Nos. 610, 624, 644, 649.)
- The Quarterly Journal of Education. I, II. London, 1831. 8vo.
- The Quarterly Journal of Pure and Applied Mathematics. Edited by J. J. Sylvester and N. M. Ferrers, assisted by G. G. Stokes, A. Cayley, and M. Hermite, corresponding Editor in Paris. I, II, Jan. and May. London, 1856, 1857. Svo.
- The Quarterly Review. I—XCVII, exciii, 1802—1855.

  London. Svo.
- Register of the Arts and Sciences. IV, No. 93. London, 1827. 8vo.
- The Register of Arts and Journal of Patent Inventions; being an improved series and a continuation of "The Register of the Arts and Sciences." IV, No. 81. London, 1830. 8vo.
- The Repertory of Arts, Manufactures, and Agriculture. XXVIII, No. 165. Second series. 1816. London. 8vo.

## Miscellanea.—Continued.

- The Repertory of Patent Inventions, and other discoveries and improvements in Arts, Manufactures, and Agriculture. XI, pp. 17—120. London, 1831. 8vo.
- Reports of the British and Foreign Bible Society, with extracts and correspondence, &c. I—XII, 1805—1839. London. Svo.

(Purchased.)

- The Retrospective Review. I—XIV, 1820—1826. The Retrospective Review, and Historical and Antiquarian Magazine. Second series. I, II, 1827, 1828. London. Svo.
- Robert Owen's Journal, explanatory of the means to well-place, well-employ, and well-educate the Population of the World. Parts I—v, x, xII, xVII, xXII, 1850—1852. London. Svo.
- Robert Owen's Millennial Gazette. Nos. X, XI, 1857. London. 8vo.
- Scientific Memoirs, selected from the Transactions of Foreign Academies of Science and Learned Societies, and from Foreign Jonrnals. Edited by RICHARD TAYLOR. I. London, 1837. Svo.
- Sharpe's London Magazine: a Journal of Entertainment and Instruction for general reading. 1845—1847. Sharpe's London Magazine. Conducted by Mrs. S. C. Hall. New series. II. London. 8vo.
- Simmonds's Colonial Magazine and Foreign Miscellany. Edited by P. L. Simmonds, Esq. XIII, No. 50. London, 1848. 8vo.
- The Spectator. A weekly Journal of News, Politics, Literature, and Science. XXIV, 1851; No. 1517, 1857. London. fol.
- Vivarium Nature, or the Naturalist's Miscellany: or Coloured Figures of Natural Objects drawn and described immediately from Nature. By G. Shaw, M. D., F. R. S.; the Figures by F. P. Nodder. I—IV. London. 8vo.
- The West Indian Reporter. I—XII, 1827; XXIV, 1829.

  London. Svo.

### Miscellanea. - Continued...

The Westminster Review. I—XL, 1824—1842. London, 1825—1843. Svo.

The Westminster and Foreign Quarterly Review. XLVI—XLIX, 1846—1849. London. 8vo.

The Westminster Review. New series. I-IV, 1852, 1853.

The Zoological Journal. I—V, 1824—1834. London, 1825—1835. 8vo.

The Zoological Miscellany; being Descriptions of new or interesting Animals, by William Elford Leach, M. D., F. R. S., & W. S. Illustrated with Coloured Figures, drawn from Nature, by R. P. Nodder. I—III, & I vol. Plates. London, 1814—1817. 8vo.

The Zoologist: a popular Miscellany of Natural History. Conducted by Edward Newman. IX—XVI. London, 1851—1858. Svo.

(Wanting X, April, May, Nov., Dec.; XI, Jan. and Feb.; XV, August.)

#### MANCHESTER.

# Literary and Philosophical Society.

Memoirs of the Literary and Philosophical Society of Manchester. I—V, 1785—1798. Second series. I— XIII, 1805—1856. London. 8vo.

#### MARKREE.

Catalogue of Stars near the Ecliptic, observed at Markree during the years 1848—1856, and whose places are supposed to be hitherto unpublished. I—IV. Dublin, 1851—1856. royal 8vo.

#### NEWCASTLE-UPON-TYNE.

# Natural History Society of Northumberland, Durham, and Newcastle-upon-Tyne.

Transactions of the Natural History Society of Northumberland, Durham, and Newcastle-upon-Tyne. I, II. Newcastle, 1831, 1838. 4to.

#### OXFORD.

## Ashmolean Society.

Abstracts of the Proceedings of the Ashmolean Society. I, II, III, XXXI—XXXIV, 1832—1856. Oxford, 1844, 1854. 8vo.

(Wanting Nos. XXII, XXX.)

Transactions of the Ashmolean Society. I, II. Oxford, 1838, 1853. Svo.

(Wanting I, Nos. 1, VIII; II, VI.)

On the Land and Fresh Water Mollusca inhabiting the neighborhood of Oxford. By J. F. WHITEAVES. Oxford, 1857.

On the Flowering Plants and Ferns of Oxfordshire and the contiguous Counties. By Maxwell T. Masters. Oxford, 1857.

Report on the Mortality and Public Health of Oxford during the years 1849, 1850. Oxford, 1854. 8vo.

## Radcliffe Observatory.

Astronomical Observations made at the Radcliffe Observatory, Oxford, 1840—1855. I—XVI. Oxford, 1842—1856. Svo.

List of Institutions and Persons to whom copies of the Radcliffe Observations are presented by the Radcliffe Trustees. Oxford. 8vo. pp. 7.

#### PENZANCE.

# Royal Geological Society of Cornwall.

Transactions of the Royal Geological Society of Cornwall.
Instituted February 11, 1814. I—VI, 1818—1846.
Penzance. Svo.

Royal Geological Society of Cornwall. Thirty-fourth annual Report of the Council, with the President's Address, and papers and notices read to the Society. Also, thirty-fifth, thirty-sixth, thirty-seventh, thirty-eighth, and thirty-ninth Reports. *Penzance*, 1847—1851. Svo.

#### WALES.

## Cambrian Archæological Association.

Cambrian Archæological Association. [List of Officers and Members, etc. etc.] London. 8vo. pp. 8.

## YORK.

## Yorkshire Philosophical Society.

Proceedings of the Yorkshire Philosophical Society. I, I. London and York, 1849. 8vo.

## GREECE.

#### ATHENS.

Le Spectateur de l'Orient. Nos. 81, 83—86. Athènes, 1857. fol.

## AFRICA.

### ALEXANDRIA.

## Societe Egyptienne.

Mémoire sur le Lac Moeris. Presenté et lu à la Société Egyptienne le 5 juillet 1842. Par LINANT DE BELLEFONDS. Alexandrie, 1843. 4to.

# ASIA.

#### MAURITIUS.

# Societe d'Histoire Naturelle de l'Isle Maurice.

Procès-Verbaux de la Société d'Histoire Naturelle de l'Isle Maurice du 6 octobre 1842 au 28 août 1845. L. Bouton, Secrétaire. *Maurice*, 1846. 4to.

#### BATAVIA.

# Bataviaasch Genootschap van Kunsten en Wetenschappen.

Verhandelingen van het Bataviaasch Genootschap van Kunsten en Wetenschappen. XX, 1844; XXI, 1846– 47. 8vo. XXII, 1849; XXIII, 1850; XXIV, 1852; XXV, 1853; XXVI, 1854–57. Batavia. 4to.

Overzigt der Geschiedenis van het Bataviaasch Genootschap van Kunsten en Wetenschappen. Van 1778—1853. Door Dr. P. BLEEKER. *Batavia*, 1853. 4to. pp. 24.

Tijdschrift voor Indische Taal-, Land-, en Volkenkunde. Uitgegeven door het Bataviaasch Genootschap van Kunsten en Wetenschappen. I—III. Batavia, 1853—1855. 8vo.

Verslag der Werkzaamheden van het Bataviaasch Genootschap van Kunsten en Wetenschappen van September 1850 tot April 1852. Namens het Bestuur des Genootschaps voorgelezen in de Algemeene Vergadering op den 27sten April 1852. Door Dr. P. Bleeker. Batavia, 1852. 4to. pp. 32.

# Natuurkundige Vereeniging in Nederlandsch Indie.

Natuur- en Geneeskundig Archief voor Neêrland's-Indië. I—IV, 1844-47. Batavia. 8vo.

Natuurkundig Tijdschrift voor Nederlandsch Indië. Uitgegeven door de Naturkundige Vereeniging in Nederlandsch Indië. Jaarg. II—V, 1851-53; VII, v, vI, 1854; IX, I, II, 1855; XII, I—III, 1856. Batavia. Svo.

(Wanting Title and Contents to II, IV, V.)

#### BOMBAY.

# Bombay Geographical Society.

Transactions of the Bombay Geographical Society. I—X, 1836—1852. Bombay, 1844—1852. Svo.

ASIA. 171

#### BOMBAY.

## Bombay Government.

Selections from the Records of the Bombay Government:

- No. I. Report by Captain Wingate, Revenue Survey Commissioner, on the Plan of Survey and Assessment most suitable to the Province of Khandesh, and also the Instructions issued on the subject of Government. Bombay, 1852. fol.
- II. Report by Captain Wingate, Superintendent of Revenue Survey and Assessment, Southern Mahratta Country (now Revenue Survey Commissioner), on the subject of introducing a Survey and Revision of Assessment in the Rutnagherry Collectorate: also a Letter from the Revenue Commissioner, S. D., submitting the above Report, and the Instructions issued by Government. Bombay, 1852. fol.
- III. Memoir on the Zilla of Baroche; being the result of a Revenue, Statistical and Topographical Survey of that Collectorate; executed by order of the Bombay Government, under the Superintendence of Lieut.-Col. Monier Williams, late Surveyor-General, Bombay Presidency. Bombay, 1855. fol.
  - IV. Report on the Village Communities of the Decean, with especial reference to the claims of the Village Officers in the Ahmednuggur Collectorate to "Purbhava Huks," or remuneration from their Villages, independent of what they receive from Government. By Mr. R. N. GOODDINE. Bombay, 1852. fol.
  - V. Report explanatory of the Revised Assessment introduced into the Talookas of Badamee and Bagulkote, in the Belgaum Collectorate. By Captain Wingate, Revenue Survey Commissioner: also, Papers relative to the suggestions made by Captain Wingate for constructing, for purposes of Irrigation, Masonry Dams across the Krishna, Gutpurba, and Mulpurba Rivers; and the instructions issued on the above subjects by Government. Bombay, 1853. fol.
  - VI. Report on the Experimental Revenue Settlement of certain villages in the broken and hilly country forming

#### BOMBAY.

## Bombay Government.—Continued.

the Kownaee Talooka of the Nassiek Sub-Collectorate, by C. E. Fraser Tytler, Esq., acting 3d Assistant Collector of Ahmednuggur; and Letters on the subject from H. E. Goldsmid, Esq. (late Superintendent of Survey in Nassick Districts), and J. Vibart, Esq., Revenue Commissioner; also, the Instructions of Government thereon. Bombay, 1853. fol.

- VII. Report on the Management of Canals and Forests in Scinde, by Lient.-Col. Walter Scott, of the Bombay Engineers. *Bombay*, 1853. fol.
- VIII. Report on the District of Sahitee, lately resumed from his Highness Ali Morad. By Lieut. J. T. Jameson, Deputy Collector of Hydrabad in Sindh. *Bombay*, 1853. fol.
- IX. Inam Commissioner's Report on the claim of Mahadajee Oorf Nago Punt Sadasew Baput to the Village of Modugay, in the Padshapoor Talooka of the Belgaum Collectorate, and the Instructions issued thereon by Government. Bombay, 1853. fol.
- X. Reports on the Purgunnas of Puranteej, Hursol, Morassa, Bayur, and Veerumgam of the Ahmedabad Collectorate, by Lieutenant (now Lieut.-Col.) P. M. Melvill, employed on the survey of that Collectorate. Also Reports on the portions of the Duskroee Purgunna situated in the Ahmedabad and Kaira Collectorates, by Capt. J. Cruikshank, Revenue Surveyor, Guzerat. Bombay, 1853. fol.
- XI. Reports on the portions of the Dholka Purgunna situated in the Ahmedabad and Kaira Collectorates; also on the Mehemoodabad and Nureead Purgunnas, and on the Oomret and Bhaluj Tuppas, in the Kaira Collectorate; and on the Pitlad Purgunna and Nepar Tuppa, in the same Collectorate. By Capt. J. CRUIKSHANK, Revenue Surveyor, Guzerat. Bombay, 1853. fol.
- XII. Reports on the Revenue Survey Settlements of the Hoobullee, Nuwulgoond, Kode, and Dharwar Talookas of the Dharwar Collectorate, by Capt. G. WINGATE,

ASIA. 173

#### BOMBAY.

## Bombay Government.—Continued.

Superintendent of Revenue Survey and Assessment in the Southern Mahratta Country (now Revenue Survey Commissioner). Also an extract from a Report on the History, &c., of the District of Chikodee, in the Belgaum Collectorate, by C. J. Manson, Esq., Assistant Inam Commissioner (now Inam Commissioner.) Bombay, 1853. fol.

- XIII. Reports on the Districts lately resumed from Meer Alli Moorad, in Sindh. By Lieutenants Webster, Lester, and Dickson, Deputy Collectors in the Shikarpore Collectorate. *Bombay*, 1853. fol.
- XIV. Report on proposed Canal and Railway in Scinde, by Lieut. Chapman; with accompanying Letters, by Major H. B. Turner and H. B. E. Frere, Esq. Bombay, 1854. fol.
- XV. Proceedings relative to the Resumption of Certain Villages and Lands held by the late Anajee Nursew; and claimed as hereditary Inams by his Son, Konher Row Anajee. *Bombay*, 1855. fol.
- Selections from the Records of the Bombay Government. New series:
- No. I. On the Supply of Water to Bombay. Bombay, 1854. royal 8vo.
- II. Report on the Southern Districts of the Surat Collectorate. By A. F. Bellasis, Esq., First Assistant Collector. Bombay, 1854. royal 8vo.
- III. Papers connected with the settlement, under Act No. VI of 1851, of the Foras Lands in Bombay. Bombay, 1854. royal 8vo.
- IV. Report on the Collectorate of Sholahpore; by Messrs. J. D. Inverarity and J. S. Inverarity. Statistical Report by Mr. A. Summers. *Bombay*, 1854. royal Svo.
- V. Report on the Collectorate of Ahmedabad, by E. G. FAWCETT, Esq. A short account of the Chootas, a Tribe inhabiting portions of the valley of the Hubb, and of the country adjacent to the Western Frontier of

#### BOMBAY.

## Bombay Government.—Continued.

Scinde. By Lieut. C. J. Steuart, Deputy Collector, Kurrachee. *Bombay*, 1854. royal 8vo.

- VII. Statistical Report of the Colaba Agency. By W. M. Hearn, Clerk, Agent's Office, Alibagh. Bombay, 1854. royal 8vo.
- IX. Bombay, Baroda and Central India Railway. Bombay, 1855. royal 8vo.
- XI. Report on the Sanitary State and Sanitary Requirements of Bombay. (With Appendices.) By H. Conybeare, Esq. Bombay, 1855. royal 8vo.
- XVI. Tours for Scientific and Economical Research, made in Guzerat, Kattiawar, and the Conkuns, in 1787-88, by Dr. Hove. Published from the MS. in the Banksian Library, British Museum, under the care of Alexander Gibson, F. L. S. Bombay, 1855. royal 8vo.
- XIX. Surveys by the Great Indian Peninsula Railway Company of the North Eastern Extension from Munmar to Mirzapore. *Bombay*, 1855. royal 8vo.
- XX. Memorandum on the Water of Nullas in Jungle Districts, as productive of disease; and the necessity of providing Wells as the indispensable preliminary to the material improvement of such Districts. By A. Bettington, C. S. With the opinions of the Medical Board, the Conservator of Forests, the two Revenue Commissioners, and the several Collectors; and the resolution of Government passed thereon. *Bombay*, 1855. royal 8vo.
- XXI. Official Correspondence relative to the Assessment of the Omercote and Narra Districts in Sind; and Statistical returns of the Province of Sind, for the year 1853-54. *Bombay*, 1855. royal 8vo.
- XXII. Second Report, with Appendices on the Supply of Water to Bombay, by H. Conybeare. Also, Observations on Mr. Conybeare's second Water Report, by Major J. H. G. Crawford. Bombay, 1855. royal 8vo.
- XXVII. Memorandum on Municipal Conservancy in the Districts of the Bombay Presidency, Sind, and Sattara.

ASIA. 175

#### BOMBAY.

## Bombay Government.—Continued.

By E. Pratt, Assistant Secretary to the Government, General Department. *Bombay*, 1856. royal 8vo.

- XXVIII. Correspondence illustrative of the practice of the Peshwa's Government regarding Adoptions, and the circumstances under which Adopted Sons could succeed to Property held from the State. *Bombay*, 1856. royal 8vo.
- XXIX. Correspondence regarding the Concealment by the Hereditary Officers and others of the Revenue Records of the former Government, and the remedial measures in progress. *Bombay*, 1856. royal 8vo.
- XXX. I.—Correspondence exhibiting the nature and use of the Poona Duftur, and the measures adopted for its preservation and arrangement since the introduction of British Rule. II.—A Selection of Papers explanatory of the origin of the Inam Commission, and of its progress, from its experimental organization in A. D. 1843 in one District of the Dharwar Collectorate, until extended to the whole of the Southern Muratha Country, the Decean, and Khandeish, and constituted a Judicial Tribunal by Act XI of 1852. Comprising also Correspondence relating to alienated Land Revenue generally throughout the Bombay Presidency. Bombay, 1856. royal 8vo.
- XXXII. Correspondence relating to the Canal Clearances in the Hydrabad Collectorate in 1854-55. *Bombay*, 1856. royal 8vo.
- XXXIII. Papers relative to a project for Wet and Dry Docks in the Harbor of Bombay. *Bombay*, 1856. royal 8vo.
- XXXIV. Official Correspondence on the Abolition of Statute or forced Labor in Sind. *Bombay*, 1856. royal 8vo.
- XXXV. Report by the Collector of Kurrachee on the Hilly Region forming the Western part of that Collectorate: also a Letter from the Acting Commissioner in Sind, submitting the above Report; and the Instructions

#### BOMBAY.

## Bombay Government.—Continued.

issued by Government on the subject. Bombay, 1856 royal 8vo.

- XXXVI. Official Correspondence regarding the Ford Wah, in the Shikarpoor Collectorate, Sind. 1855-56. Bombay, 1856. royal 8vo.
- XXXVIII. Correspondence relating to the tenure of the Possessions in the Deccan held by his Highness Jyajee Rao Sindia under the Treaty of Surje Anjungaum. *Bombay*, 1856. royal 8vo.
- XL. Papers regarding the Revenue Settlement effected in the Districts of Omerkote and Thurr; and on the condition and system of management of the Thurr and Parkur Districts. *Bombay*, 1856. royal 8vo.
- XLII. Report of Captain W. L. MEREWETHER, Acting Political Superintendent, Frontier of Upper Sind, with other Papers relating to the Enlargement of the Bigaree Canal, in Upper Sind. *Bombay*, 1857. royal 8vo.
- XLIV. Report of the Examination of the Mineral Districts of the Nerbudda Valley. By J. H. Blackwell, Esq., Mineral Viewer for Bombay. Bombay, 1857. royal 8vo.
- DE LISLE, A. Report on the question of Weighing or Measuring Salt, together with a sheet of Diagrams, and a sketch of a Weighing-Machine. *Bombay*, 1851. Svo. pp. 31.
- Index to Books and Papers on the Physical Geography,Antiquities, and Statistics of India. By George Buist,LL.D. Bombay, 1852. 8vo.
- Rules for the Guidance of the Native Establishments of the Southern Mahratta Country Revenue Survey Department. By Capt. G. WINGATE, Superintendent of the Survey. Translated by Mr. W. S. Price, Assistant Superintendent. Bombay, 1853. fol.
- A Statement and Remarks relating to the Expenses of Irrigation from Wells in the Deccan, Khandesh, &c. By Capt. Meadows Taylor, Deputy Commissioner, Raichore Dovab. *Bombay*, 1856. 8vo. pp. 15.

ASIA. 177

#### BOMBAY.

## Bombay Government.—Continued.

Atlas to Geological Papers on Western India, including Cutch, Sinde, and the S. E. Coast of Arabia; to which is appended a Summary of the Geology of India. Edited for the Government by H. J. Carter, Assistant Surgeon, H. C. S. Bombay. Bombay, 1857. oblong fol.

The following were received while this Catalogue was in press:

VIII. Statistical Report on the Principality of Kolhapoor.
Compiled by Major D. C. Graham. Bombay, 1854.
Svo.

X. Memoir on the Sawunt Waree State. By Mr. W. COURTNEY and Major J. W. Auld. With brief Notes relative to the State by the latter officer. To which are appended a Census of the Sawunt Waree District for the year 1851; prepared by Mr. H. L. Anderson. A Paper containing information relative to the Sawunt Waree State; prepared in the year 1818, by Captain Gideon Hutchinson. Copies of Treaties, Agreements, &c., coneluded by the Hon. East India Company with the Sawunt Waree State, between the year 1730 and 1843. vations on Ancient Copper Tablets, excavated in the Sawunt Waree Districts, accompanied by fac-similes and translations of the inscriptions thereon; by Major G. LE GRAND JACOB. Statistical Report on the Portuguese Settlements in India. Extracted, in the year 1850, from official documents, by Captain Kool. To which are added copies of Treaties, &c., concluded between Great Britain and Portugal, between the years 1661 and 1850. Bombay, 1855. 8vo.

XII. Memoir of the Mahee Kanta; prepared in May 1845, by Captain J. R. Kelly, with subsequent additions. To which are appended a Statement of the several Talookas under that Agency; showing the amount of Grandsdana and Jumabundee paid by each to his Highness the Gaekwar, &c. &c.; by Captain W. Lang. Statistical Information; by Major C. R. Whitelock. Memoir on the Edur State, by Major W. Miles. Minute by the Hon-

#### BOMBAY.

## Bombay Government.—Continued.

ourable Mr. J. P. WILLOUGHBY, and Extracts from the Proceedings of the Government thereon, relative to the question of Succession to the Chiefship of Ahmednuggur, in the Mahee Kanta, consequent on the election of its chief, Tukht Sing, to the Throne of Jodhpoor. Copies of Engagements, &c., between the Peshwa and Gaekwar; and between the Honourable East India Company and the Gaekwar and the chiefs in the Mahee Kanta. Bombay, 1855. 8vo.

XIII. A History of Sind, embracing the period from A. D. 710 to A. D. 1590; written in Persian, at the close of the sixteenth century, by Mahomed Masoom; and translated into English in the year 1846, by Captain George Grenville Malet. Bombay, 1855. 8vo.

XIV. Memoir on the Physical Character of the Nesbudda River and Valley; with Remarks on the practicability of the river being rendered a navigable stream. Also a descriptive detail of the Mineral Resources of the Nesbudda Valley; and an Analysis of the past Correspondence of Government on the subject of the Coal Beds in its vicinity, by Surgeon E. Impey. To which are appended, a Selection from the Records of the Bombay Government, 1838—1851, relating to the Nesbudda River and the Mineral Districts of the Valley; and Extracts from Reports, by J. J. Berkley and Lieut. Col. J. P. Kennedy. With Accompaniments to the latter Report. Bombay, 1855. 8vo.

XV. Memoir and brief Notes relative to the Kutch State; by Lieut. S. N. RAIKES. Historical Sketch of Kutch, by Captain Charles Walter. Statements containing Names of the towns and villages in the Kutch Territory, their estimated annual Revenue, &c.; by Mr. Arthur Malet. Observations by Mr. J. G. Lumsden, on a Map prepared by him, showing the possessions of his Highness the Rao, and the dependent Chiefs, &c., in Kutch, furnished to Mr. Ogilvy by his Highness the Rao. Memoir on the Trade, &c., of the Port of Mandvee in Kutch;

ASIA. 179

#### BOMBAY.

## Bombay Government.—Continued.

by the late Lieut. R. LEECH. Medical Topography of Bhooj, by Surgeon James Burnes. Routes between Bhooj and Ahmedabad, by Lieut. Col. J. Holland. To which are added, Copies of Treaties, Engagements, &c., entered into by the Honourable East India Company with the Kutch State, between 1809 and 1851. Bombay, 1855. 8vo.

XVII. Memoirs on Shikarpoor; the Synds of Rau and Bukhur; the Khyrpoor State; the States and Tribes on the Frontier of Upper Sind; the Bay, Harbour, Town, and Trade of Kurachee; the Province of Lees; the City of Tatta, and its environs. Journal of Captain L. Brown, while at Kahun in A. D. 1840. Routes leading from Kurachee to Jerruck, &c. Reports on the Country between Kurachee, Tatta, and Sehwan. Narratives of Visits to Beyla, and the port of Sonmeeance. Report on the Munchur Lake, and Arul and Nara Rivers. randum relative to the Trade in Indigo, in countries bordering on the Indus. Memoirs on the River Indus. Remarks on the Plants, and Articles of Cultivation in Sind; Notes relative to the Population, the Chiefs, &c., in that Province; the Pearl Fishery, Sea Fishery, and Salt Beds of Sind. Report on the Purguna of Chandookah, in Upper Sind, Routes from Kurachee, &c., to Bhooj, Tatta, Jeruk, Sukkur, &c. Parts I, H. Bombay, 1855. Svo.

XXIII. Sketches of Native States under the Political Agency in the Rewa Kauta. Prepared by Major R. Wallace. The Rewa Kauta Tributaries, and the Fortified Places in that Province. Report on the Hill Fort of Powagur; List of the Towns and Villages in the Rewa Kauta; their estimated Revenues, &c. Geological and Statistical Notes on portions of the Rewa Kauta Districts, and Description of the Iron Ores of that Province, by the late Major G. Fulliames. Historical Sketch, &c., of the petty State of Baria, by J. P. Willoughey. Settlement of the Naikra Country, effected in the year

#### BOMBAY.

# Bombay Government.—Continued.

1838, by A. Malet. Claim of the Babee of Balasuior to exercise Sovereignty over the Satoomba Talooka. Memoir on the Rajpeepla State, by J. P. Willoughby. Routes in, and Reports, &c., on the Rajpeepla and adjoining Districts, surveyed during the years 1852 to 1855. Investigation into the disputed Succession to the Gadee of Rajpeepla, by J. P. Willoughby. Reports by Mr. J. P. Willoughby on the Resources, &c., of Rajpeepla, and various proceedings connected with that State. Settlements based on a system of conciliation, effected by Mr. J. P. Willoughby, during the years 1822 to 1826. for the reclamation, &c., of the turbulent Bheels, Naikras, and Mahwasees residing in the Rajpeepla and other Dis-Extracts from Reports by Major Wallace on the Punchmahal Districts. Parts I, II. Bombay, 1856.

XXIV. Historical and other Information, connected with the Province of Oman, Muskat, Buhrein, and other places in the Persian Gulf. Reports on the Island of Kenn: on Bassadore; the Harbour of Grane; and the Island of The Rise and Progress of, and Past Policy of the British Government towards, the Arab Tribes of the Persian Gulf; their Resources, Localities, &c. Chronological Tables of Events, from 1716 to 1843, connected with the Government of Muskat, and the Arab Tribes of the Persian Gulf. Rise and Progress of the Government of Muskat: and miscellaneous Information connected with that Government, from 1694 to 1853. Treaties, Engagements, &c., with the Imaum of Muskat, &c. Notes of a Visit to Zanzibar in the year 1834. Information connected with the Possessions, Revenues, Families, &c., of the Imaum of Muskat; the Ruler of Bahrein; and the chiefs of the Maritime Arab States in the Persian Gulf. Historical Sketches of the Joasmee, Uttoobee, Wahabee, Benivas, Boo Felasa, Ejman, and Amulgavine Tribes of Arabs, from the year 1716 to the year 1853. descriptive of the Navigation of the Gulf of Persia;

ASIA. 181

#### BOMBAY.

## Bombay Government.—Continued.

accompanied by brief Notices of the manners, customs, religion, commerce, and resources of the people inhabiting its shores. Measures adopted by the British Government for the Suppression of the Slave Trade in the Persian Gulf. Bombay, 1856. Svo.

XXV. Historical Sketches of, and brief Notes relative to, the native States of Pahlunpoor, Radhunpoor, Warye, Terwara, Thurad and Morwara, Wao, Sooegaum, Deodur, Santulpoor and Charchut, Bhabhur, and Kanruj; comprised within the charge of the Political Superintendent of Pahlunpoor List of the Districts, Talookas, Purgunas, and villages subject to the jurisdiction of the Political Superintendent at Pahlunpoor; the names of the Chiefs, their Capitals, Revenues, &c. Information relative to the fortified places in the Pahlunpoor Districts. Measures adopted by the Government of Bombay for the Prevention of Suttee and Infanticide, in the Pahlunpoor Districts. Bombay, 1856. 8vo.

XXVI. Rough Notes containing historical, statistical, and other Information connected with the petty States of Junjeera, and Jowar, in the Fanna Collectorate; Sucheen, Dhurumpoor, and Bansda, in the Surat Collectorate; Cambay, in the Kaira Collectorate; Penth, in the Nasik Sub-Collectorate; and the petty Native States under the control of the Collector of Khandesh. Historical narrative of the City of Cambay, from Sanskrit and Persian Books, and oral traditions; comprising, also, a brief sketch of the Province of Guzerat at various periods. Observations on the "Bore," or rushing tide in the Northern Parts of the Gulf of Cambay, and the entrances of the Mahee and Saburmutee Rivers. Proceedings connected with the question of Succession to the Penth Estate, in consequence of the death, in the year 1857, without male issue, of Dulput Rao, Raja of that petty Principality. Historical Sketch of the Bheel Tribes inhabiting the Province of Khandesh; accompanied by an Outline, down to the close of the year 1855, of the prin-

#### BOMBAY.

# Bombay Government.—Continued.

ciples of the conciliatory line of policy which, from the year 1825, has been observed towards these rude tribes by the Bombay Government. *Bombay*, 1856. Svo.

XXXI. Correspondence exhibiting the results of the scrutiny by the Inam Commission of the Lists of Decean Surinjams prepared in 1844 by the Agent for Sirdars, Mr. Warden, and revised under orders from Government in 1847 by his successor, Mr. Brown; containing, also, the Proceedings which have taken place regarding these Holdings from the introduction of British Rule to the present period, and the Rules by which their continuance is now regulated. Bombay, 1856. 8vo.

XXXVII. Historical, Geographical, and Statistical Memoirs on the Province of Kattywar; and on the Districts of Babriawar and Okhamundal; also a Report on the Iron of Kattywar, by Captain G. LE GRAND JACOB. Miscellaneous Notes connected with the native States in Kattywar; and Information relative to the wandering tribes in the Province: by Captain J. T. BARR. tical and other Information connected with the Districts of Jhalawar, Kattywar, Muchoo Kanta, Hallar, Soruth, Burda, Gohelwar, Oond, Surweya, and Babriawar; prepared by Mr. D. A. BLANE. Memoir on the Province of Kattywar, with Remarks on the Runn of Kutch and the District of Okhamundul; by the late Captain J. Lists of Fortified Places in the Province of Macmurdo. Kattywar. Report relative to the first Introduction of Vaccination into Kattywar in the year 1808. connected with Kattywar. Names, Titles, &c., of the Bombay, 1856. principal chiefs of Kattywar. Map of the Province of Kattywar.

XXXIX. Part I. Reports on the Resources, &c., of the Districts of Neriad, Matur, Mondeh, Beejapoor, Dholka, Dundooka, and Gogo, the Tuppa of Napar, and the Kusba of Ranpoor, in Guzerat; accompanied by brief Notes relative to the Condition of that Province previous to the close of the last century. With Memoirs on the

ASIA. 183

#### BOMBAY.

## Bombay Government.—Continued.

Districts of Jhalawar, Kattywar Proper, Muchoo Kanta, Nowanuggur, Gohelwar, Poorbunder, Soruth, and Hallar, in Kattywar; accompanied by Miscellancous Information connected with that Province. By the late Colonel Alexander Walker. Part II. Measures adopted for the Suppression of Female Infanticide in the Province of Kattywar, &c. By the late Colonel Alexander Walker, and by Mr. J. P. Willoughey, and his successors in office. Bombay, 1856. 8vo.

XLI. Memoir on the Satara Territory. Early History, &c., of the Bhouslays of Satara. Brief Notes relative to the Satara Jageerdars. Notes on the Climate and Diseases of Satara. Census taken in September, 1848, of the Satara Districts. Reports on the Revenues, Resources. &c., of the lapsed Satara Territory. Reports on the old Public Buildings of Mahomedan Architecture at Beejapoor, in the Satara Districts, &c. &c. Bombay, 1857. Syo.

XLIII. Memoirs by Commander James Felix Jones. Steam-Trip to the North of Baghdad, in April 1846; with Notes on various objects of interest en route. Jonrney for the purpose of determining the Tract of the ancient Nahrwan Canal, undertaken in April 1848; with a glance at the past History of the Territory of the Nahrwan. Journey to the frontier of Turkey and Persia, through a part of Kurdestan. Researches in the vicinity of the Median Wall of Xenophon, and along the old course of the River Tigris; and discovery of the site of ancient Opis. Memoirs on the Province of Baghdad. Notes on the Topography of Ninevell, and the other cities of Assyria; and on the general Geography of the Country between the Tigris and the Upper Zab; founded upon a Trigonometrical Survey made in the year 1852. Bombay, 1857. 8vo.

XLVI. Annual Progress Reports of the Executive Engineers in the Southern, Central, and Northern Provinces

#### BOMBAY.

## Bombay Government.—Continued.

of the Bombay Presidency in 1856-57. Bombay, 1857. Svo.

XLVII. Report on a Project for the supply of Water to the Poona Cantonment. By Captain Philip Lewis Hart. With Plans and Sections (in a separate case). Bombay, 1858. Svo.

XLVIII. A short Review of Mr. Plowdon's Report on the Salt Excise of the Bombay Presidency. By N. A. DAL-ZELL. Bombay, 1858. 8vo. pp. 21.

## Royal Asiatic Society.

The Journal of the Bombay Branch of the Royal Asiatic Society. I; II; III, XII, XIV; IV; V; 1841—1857. Bombay, 1844—1854. 8vo.

## CALCUTTA.

## Asiatic Society of Bengal.

Journal of the Asiatic Society of Bengal. New series. Vol. XXII, vII; XXIII, II—vII, 1853, 1854. *Calcutta*. 8vo.

#### HONG KONG.

# Asiatic Society of China.

Transactions of the China Branch of the Royal Asiatic Society. Parts III, IV, 1851-52, 1853-54. Hong Kong, 1853, 1855. Svo.

A Letter on the Population of China. By Sir John Bow-RING. Read to the Society 8th August, 1855. [Extract from the Transactions.]

#### Miscellanea.

The China Mail. I—VIII, 1845—1852. Hong Kong. fol.

#### MADRAS.

## East India Company's Observatory at Madras.

Astronomical Observations made at the Honorable the East India Company's Observatory at Madras in the years 1843—1847, 1848—1852. *Madras*, 1848, 1854. 4to.

# Literary Society & Auxiliary of the Royal Asiatic Society.

The Journal of Literature and Science. Published under the Auspices of the Madras Literary Society, and Auxiliary of the Royal Asiatic Society. I—XVI, XVII, pp. 1—159, 1833—1851. *Madras*, 1834—1853. New series. I, II, 1856, 1857. *Madras*. 8vo.

## BRITISH AMERICA.

### CANADA EAST.

#### MONTREAL.

# Departement de l'Instruction Publique.

Journal de l'Instruction Publique. Redigé par l'Honorable Pierre J. O. Chauveau, Redacteur en chef, et par M. Joseph Lenoir, Assistant Redacteur. Vol. I. *Mont-réal*, 1857. 4to.

# Natural History Society.

Twenty-fifth, twenty-sixth, and twenty-seventh Annual Reports of the Natural History Society of Montreal. 1853, 1854, 1855. *Montreal*. 8vo.

The Canadian Naturalist and Geologist, and Proceedings of the Natural History Society of Montreal. I, I, II, III, VI; II, I, III—VI, 1856, 1857. *Montreal*. 8vo.

# Societe d'Agriculture du Bas-Canada.

Journal d'Agriculture, et Transactions de la Société d'Agriculture du Bas-Canada. II, 1849; IV, 1851; VI, I, II, 1853. Montreal. 8vo.

#### MONTREAL.

## Societe d'Agriculture du Bas-Canada.—Continued.

Prize List of the Agricultural Association of Lower Canada for 1853. *Montreal*. 16mo. Idem for 1856. *Montreal*. 4to.

The Farmers' Journal and Transactions of the Lower Canada Board of Agriculture. V, 1—III, 1857. Montreal. 8vo.

#### Miscellanea.

The British American Journal of Medical and Physical Science. Edited by Archibald Hall, M. D., and Robert L. Macdonnell, M. D. I—III, V. Montreal, 1845—1850. 4to.

Journal of Education. Vol. I. Montreal, 1857. 4to.

## QUEBEC.

## Literary and Historical Society.

Transactions of the Literary and Historical Society of Quebec. IV, 111, 1853. Quebec, 1855. Svo.

## CANADA WEST.

## TORONTO.

#### Canadian Institute.

The Canadian Journal: a Repertory of Industry, Science, and Art, and a Record of the Proceedings of the Canadian Institute. I—III, 1852—1855. 4to. New series. I, II, 1856—1857. Toronto. 8vo.

Supplement to the Canadian Journal. Reports on the Improvement and Preservation of Toronto Harbor. *Toronto*, 1854. 4to.

# University College.

[List of Officers and Programme.] 8vo. pp. 14.

#### Miscellanea.

Journal of Education. X, 1—III, v, VII, VIII, XII. Toronto, 1857. 4to.

### JAMAICA.

#### KINGSTON.

## Jamaica Society of Arts.

The Transactions of the Jamaica Society of Arts. I, II, 1854—1856. Kingston. 4to.

## NEW BRUNSWICK.

## FREDERICTON.

New Brunswick Society for the Encouragement of Agriculture, Home Manufactures, and Commerce.

Journal of the New Brunswick Society. Instituted at Fredericton, N. B., August 30, 1849. Fredericton, 1850. 8vo.

## PRINCE EDWARD ISLAND.

## Royal Agricultural Society.

Report of the Royal Agricultural Society of Prince Edward Island for 1855 and 1857. Charlotte Town, 1855, 1857. 12mo.

Hints to the Farmers of Prince Edward Island, by Judge Peters. Charlotte Town, 1851. 12mo.

# SPANISH AMERICA.

#### CUBA.

## HABANA (HAVANA).

Real Acuerdo de la Audiencia Pretorial de la Habana.

Colleccion de las Disposiciones Gubernativas, Administrativas, Económicas, &c., mandadas poner en observancia en esta Isla de Cuba. Tomo II, pp. 5—36. *Habana*, 1849. Svo.

#### HABANA.

## Real Sociedad Economica de Amigos del Pais.

Acta de las Juntas Generales que celebro la Real Sociedad Económica de Amigos del Pais de la Habana. 1829— 1833, 1855. *Habana*, 1830—1834, 1856. 8vo.

Memorias de la Sociedad Económica de la Habana. Nos. IV, VII, VIII, IX, XII, 1817; XIV, XVI, XVII, XIX, XXIII, XXIV, 1818; XLIX, LI—LIII, 1824. Segunda edicion. I, I, 1835; XV, I, II, 1842; XVII, V, VI; XVIII, II—VI; XIX, I, II, IV, V, VI, 1854—1855; XX, 1855. Segunda serie. I, III—V; II, I—III, V, VI; III; IV; V, II—VI; VI; VI; VII, I—III, 1846—49. Habana. 8vo.

Anales de las Reales Junta de Fomento y Sociedad Económica de la Habana. I, III—VI; II; III, II, III, v. Habana, 1849, 1850. 8vo.

Annales y Memorias de la Real Junta de Fomento y de la Real Sociedad Económica de la Habana. I—III, I—VI, 1853-56. *Habana*, 1854-57. 8vo.

Estatutos de la Real Sociedad Económica de la Habana. Habana, 1846. Svo. pp. 39.

Relacion Historica de los Beneficios hechos á la Real Sociedad Economica, Casa de Beneficencia y demas Dependencias de aquel euerpo por el Escmo. Señor Don Francisco Dionisio Vives. *Habana*, 1832. sm. fol. pp. 36.

Exposiciones Publicas de Industria, Ganado, Objetos agricoles y Belles Artes. Habana, 1854. 8vo. pp. 10.

Documentos relativos a la Instalación de la Real Sociedad Economica. *Habana*, 1856. 8vo. pp. 24. Idem. *Habana*, 1856. 16mo. pp. 48.

## Real Sociedad Patriotica de la Habana.

Memorias de la Real Sociedad Patriotica de la Habana.

I—XIV, 1836—1842. Habana. 8vo.

(Wanting Nos. 1, 27, 38, 39, 42—44, 47, 48.)

Tareas de la Real Sociedad Patriotica de la Habana en el año de 1815. Habana, 1816. 8vo.

Seidell, F. [Letter advocating the formation by the Society of a Geographico-Historical Dictionary of the Island of Cuba.] *Hubana*, 1812. Svo. pp. 3.

#### HABANA.

#### Miscellanea.

La Cartera Cubana. Director VICENTE ANTONIO DE CASTRO. I.—V, 1838-40. Habana. 8vo.

## MEXICO.

#### MEXICO.

## Sociedad Mexicana de Geografia y Estadistica.

Boletin de Geografia y Estadística de la Republica Mexieana, presentado al Supremo Gobierno por la Comision de Estadística Militar. Nos. 2, 3, 4, 6, 7. *México*, 1849.

Boletin de la Sociedad Mexicana de Geografia y Estadística. Tomo I, Nos. 1, 8—11; II. México, 1850. Svo.

Ley de 28 Abril de 1851, legalizando la ecsistencia de la Sociedad Mexicana de Geografía y Estadística, y el reglamento que ella ha acordado para su gubierno interior. México, 1851. Svo. pp. 30.

## SOUTH AMERICA.

# CHILE.

## SANTIAGO.

## Universidad de Chile.

Anales de la Universidad de Chile. 1843—1854 (11 vols.);
 Jan.—March, 1855. Santiago, 1846—1855. 8vo.
 Anales de la Universidad de Chile. 1843—1851. Santiago, 1846—1852. 4to.

#### Miscellanea.

Monitor de las Escuelas Primarias. I—III, 1—VIII, 1852 —1855. Santiago de Chile. 4to.

# POLYNESIA.

## SAND WICH ISLANDS.

## HONOLULU.

# Royal Hawaiian Agricultural Society.

Transactions of the Royal Hawaiian Agricultural Society. II, I, II, 1854, 1855. Honolulu, 1854, 1855. 8vo.

# SUPPLEMENT.

## DENMARK.

## KJÖBENHAVN.

## Kongelige Nordisk Oldskrift-Selskab.

- Société Royale des Antiquaires du Nord [Report of Annual Meeting of 1858. List of new Members, etc.] 8vo. pp. 4.
- Société Royale des Antiquaires du Nord le premier Janvier 1858. [List of Members, Books published, etc.] 8vo. pp. 12.
- Grönlands Historiske Mindesmaerker, udgivne af det Kongelige Nordiske Oldskrift-Selskab. Bde I—III. Kjöbenhavn, 1838-45. 8vo.
- Islendinga Sögur, udgivne efter gamle Haandskrifter af det Kongelige Nordiske Oldskrift-Selskab. Bde I, II. Kjöbenhavn, 1843, 1847. 8vo.
- Færeyinga Saga eller Færoboernes Historie i den Islandske Grundtext med Færoisk og Dansk oversættelse. Udgiven af Carl Christian Rafn. *Kjöbenhavn*, 1832. 8vo.
- Antiquitates Americanæ. Edidit Societas Regia Antiquariorum Septentrionalium. Studio et opera Caroli Christiani Rafn. Hafniae, 1845. fol.
- Inscription Runique du Pirée. Interprétée par C. C. RAFN et publié par la Société Royale des Antiquaires du Nord. Copenhague, 1856. 8vo.
- Antiquités de l'Orient, Monuments Runographiques interprétés par C. C. RAFN, et publiés par la Société Royale des Antiquaires du Nord. Copenhague, 1856. Svo. pp. 48.
- Sur la Construction des Salles dites des Géants par S. M.

## KJÖBENHAVN.

## Kongelige Nordisk Oldskrift-Selskab. - Continued.

le Roi Frederic VII de Danemark. Copenhague, 1857. 8vo. pp. 19.

- Atlas de l'Archéologie du Nord, représentant des Echantillons de l'Age de Bronze et de l'Age de Fer. Publié par la Société Royale des Antiquaires du Nord. Copenhague, 1857. fol.
- A Map of Vinland from accounts contained in Old Northern MSS. By Chas. C. Rafn. Published by the Royal Society of Northern Antiquaries. Copenhagen, 1837.
- General Chart exhibiting the discoveries of the Northmen in the Arctic Regions and America during the 10th, 11th, 12th, 13th, and 14th Centuries, from accounts contained in Old Northern Manuscripts. By Chas. C. Rafn. Published by the Royal Society of Northern Antiquaries. Copenhagen, 1837.
- Antiquités Russes d'après les Monuments Historiques des Islandais et des Anciens Scandinaves. Editées par la Société Royale des Antiquaires du Nord. Tomes I, II. Copenhague, 1850, 1852. fol.
- En Vandring gjennem Jægerspriis's Have og Lund. Aftrykt af Annaler for Nordisk Oldkyndighed og Historie for Aaret MDCCCLVI. Kjöbenhavn, 1858. Svo. pp. 40.
- Cabinet d'Antiquités Américaines à Copenhague. Rapport Ethnographique. Copenhague, 1858. 8vo.
- Lexicon Poeticum antiquae Linguae Septentrionalis. Conscripsit Sveinbjörn Egilsson. Edidit Societas Regia Antiquariorum Septentrionalium. Fasc. IV. Hafniae, 1859. Svo.

#### Miscellanea.

Naturhistorisk Tijdsskrift. Udgivet af Henrik Krover. III, IV. Second series. I, II. Kjöbenhavn, 1840-49. Svo.

## RUSSIA.

#### HELSINGFORS.

#### Societas Scientiarum Fennica.

Ofversigt af Finska Vetenskaps-Societetens Forhandlingar. IV, 1856—1857. *Helsingfors*, 1857. 4to.

Bidrag till Finlands Naturkännedom, Etnografi och Statistik, utgifna af *Finska Vetenskapssocieteten*. Hfte I, II, IV. *Helsingfors*, 1857–58. 8vo.

#### ST. PETERSBURG.

## Imper. Russkoe Geographitsheskoe Obshtshestvo.

Société Impériale Géographique de Russie. Procès-verbal de l'Assemblée générale du 5 Novembre 1858. 8vo. pp. 3.

## Kaiserlich œffentliche Bibliothek.

Auszug aus dem Jahresberichte der St. Petersburger Kaiserlich öffentlichen Bibliothek für 1857. St. Petersburg, 1858. Svo. pp. 20.

# HOLLAND.

#### AMSTERDAM.

# Koninklijke Akademie van Wetenschappen.

Jaarboek van de Koninklijk Akademie van Wetenschappen.
April 1857—April 1858. Amsterdam. 8vo. pp. 80.
Catalogus van de Boekerij der Koninklijke Akademie van Wetenschappen. Deel I, Stuk 1. Amsterdam, 1858.

#### Stad Bibliotheek.

8vo.

Catalogus van de Bibliotheck der Stad Amsterdam. Gedeclte III, IV. Amsterdam, 1858. 8vo.

#### AMSTERDAM.

## Vereeniging voor Volksvlijt.

De Volksvlijt. Tijdschrift voor Nijverheid, Landbouw, Handel en Scheepvaart. Uitgegeven door de Vereeniging voor Volksvlijt, te Amsterdam. Onder redactie van de Directeuren Prof. S. Bleekrode, Mr. C. A. Van Eljk, Dr. S. Sarphati, Dr. W. C. H. Staring, 1858. Amsterdam. 8vo.

## ARNHEM.

## Openbare Bibliotheek.

Catalogus van de Openbare Bibliotheek te Arnhem. Arnhem, 1858. 8vo.

## HERTOGENBOSCH.

# Provinciaal Genootschap van Kunsten en Wetenschappen in Noordbrabant.

- Handelingen van het Provinciaal Genootschap van Kunsten
  en Wetenschappen in Noordbrabant. 1837—1857.
  Hertogenbosch, 1837—1858. 8vo.
- Reglement van het Provinciaal Genootschap van Kunsten en Wetenschappen in Noordbrabant. Hertogenbosch, 1850. Svo. pp. 19.
- Catalogus der Bibliotheek van het Provinciaal Genootschap van Kunsten en Wetenschappen in Noordbrabant. Hertogenbosch, 1853. 8vo.
- GEUS (A. de). Geschiedkundige Beschrijving der Overlaten in de Provincie Noord-Braband. Uitgegeven door het Provinciaal Genootschap van Kunsten en Wetenschappen in Noord-Braband. Met vijf Bijlagen en drie Platen. Breda, 1844. 4to.
- Verzameling van Kronyken betrekkelijk de Stad en Meijerij van 's Hertogenbosch. Uitgegeven door het Provinciaal Genootschap van Kunsten en Wetenschappen in Noord-Braband. Stuk I—III. Hertogenbosch, 1846-48. 8vo.
- HERMANS (Dr. C. R.). Analytische Opgave der gedrukte Charters, Diploma's, Handvesten, Plakaten, Keuren, Ordonnantien, Reglementen en andere Staatsstnkken, betrekkelijk de Provincie Noord-Braband, van het Jaar

#### HERTOGENBOSCH.

## Provinciaal Genootschap, etc.—Continued.

704 tot en met het Jaar 1648. Uitgegeven door het Provinciaal Genootschap van Kunsten en Wetenschappen in Noord-Braband. Hertogenbosch, 1844. 8vo.

Hermans (Dr. C. R.). Verzameling van Charters en Geschiedkundige Bescheiden, betrekkelijk het Land van Ravestein. Uitgegeven door het Provinciaal Genootschap van Kunsten en Wetenschappen in Noord-Braband. Deel I, II. Hertogenbosch, 1848—1850. 8vo.

(Wanting Preface and Index to Decl II.)

- Verzameling van zeldzame Oorkonden betrekkelijk het Beleg van 's Hertogenbosch in den Jare 1629. Uitgegeven door het Provinciaal Genootschap van Kunsten en Wetenschappen in Noord-Braband. Eerste Stuk. Hertogenbosch, 1850. 8vo.
- Vlugtig Overzigt der Verzamelingen van het Provinciaal Genootschap van Kunsten en Wetenschappen in Noord-Brabant, ten dienste der Leden van het Xde Landhuishoudkundig Congres, te houden den 19-23 Junij 1855, te 's Hertogenbosch. *Hertogenbosch*, 1855. Svo. pp. 30.
- FIJNJE (H. F.). Vervolg op de Geschiedkundige Beschrijving der Overlaten in de Provincie Noord-Brabant.

  Uitgegeven door het Provinciaal Genootschap van Kunsten en Wetenschappen in Noord-Brabant. Met vijf Bijlagen en eene Kart. Hertogenbosch, 1853. 4to.

# LEIDEN (LEYDEN).

# Maatschappij der Nederlandsche Letterkunde.

Nieuwe Reeks van Werken van de Maatschappij der Nederlandsche Letterkunde te Leiden. Deel X. Leiden, 1857. 8vo.

# Nederlandsche Entomologische Vereeniging.

Tijdschrift voor Entomologie. Uitgegeven door de Nederlandsche Entomologische Vereeniging, onder redactie van Prof. J. Van der Hoeven, Dr. M. C. Verloren en Mr. S. C. Suellen van Vollerhoven. Deel II, Affl. 1, 2. Leiden, 1858. 8vo.

## ZWOLLE.

# Overijsselsche Vereeniging tot Ontwikkeling van Provinciale Welvaart.

Verslag van de Ontwerpen voor eene Vaste Brug over den Ijssel bij het Katerveer. 1852—1856. Zwolle. 1856. 8vo. pp. 32.

Catalogus van de Boekerij der Overijsselsche Vereeniging tot Ontwikkeling van Provinciale Welvaart geplaatst op het Museum benevens het Reglement voor het Lezen der Boeken. Kampen, 1857. 8vo. pp. 78.

## GERMANY.

#### AGRAM.

## K. K. Gymnasium.

Programm des k. k. Gymnasiums zu Agram am Schlusse des Schuljahres 1857. Agram, 1857. 4to. pp. 32.

## Handels- und Gewerbekammer fur Kroatien.

Bericht der Handels- und Gewerbekammer für Kroatien an das hohe Kais. königl. Ministerium für Handel, Gewerbe und öffentliche Bauten über den Zustand der Urproduktion, der Gewerbe, des Handels und der Verkehrsmittel ihres Bezirkes während des Jahres 1852. Idem, 1853—1856. Agram, 1853—1858. 8vo.

# Kroatisch-Slavonische Landwirthschafts-Gesell-schaft.

Monatsblatt der Kroatisch-slavonischen Landwirthschafts-Gesellschaft. Jahrg. IX. Agram, 1850. Svo.

Verhandlungen der Forst-Section der Landwirthschafts-Gesellschaft für Croatien und Slavonien im Jahre 1852. Redigirt vom Vorstande der Forst-Section. *Agram*, 4vo.

### ALTENBURG.

# Geschichts- und Alterthumsforschende Gesellschaft des Osterlandes.

Mittheilungen der Geschichts- und Alterthumsforschenden Gesellschaft des Osterlandes. Bde I, Heft 4. II—IV, V, 1. Altenburg, 1844-59. 8vo.

Erster und Zweiter Bericht über das Bestehen und Wirken der Geschichts- und Alterthumsforschenden Gesellschaft des Osterlandes. 1838–40. Altenburg. 8vo.

Dritter Bericht. 1841-42. Altenburg. 8vo.

Statuten der Geschichts- und Alterthumsforschenden Gesellschaft des Osterlandes. Altenburg, 1854. 8vo. pp. 8.

#### AUGSBURG.

### Naturhistorischer Verein.

VIII. Bericht des Naturhistorischen Vereins in Augsburg. 1855. Svo.

IX. Bericht. 1856.

X. " 1857.

XI. " 1858.

### BERLIN.

# Entomologischer Verein.

Berliner Entomologische Zeitschrift. Herausgegeben von dem Entomologischen Vereine in Berlin. Jahrg. I, II. Berlin, 1857-58. Svo.

(From Baron d'Osten-Sacken.)

# Kæniglich Preussische Akademie der Wissenschaften.

Berliner Astronomisches Jahrbuch für 1836, 1837, 1838. Berlin, 1834-36. 8vo.

# Verein fur Eisenbahnkunde.

Verhandlungen des Vereins für Eisenbahnkunde in Berlin. 1856—1857. Berlin. 8vo.

#### BERLIN.

### Miscellanea.

Allgemeine deutsche Bibliothek. Bde I—LXIII. Berlin und Stettin, 1766-85. 8vo.

Anhang zu dem Ersten bis Zweyundfünfzigsten Bande der Allgemeinen deutschen Bibliothek. 1771-80. Berlin und Stettin. 8vo.

Wochenschrift für Gärtnerei und Pflanzenkunde. Herausgegeben von Prof. Dr. Karl Koch und G. A. Fintelmann. 1858; 1859, Nos. 1—14. Berlin. fol.

### BRÜNN.

# K. K. Mæhrisch-Schlesische Gesellschaft zur Befærderung des Akerbaus, der Natur- und Landeskunde.

Mittheilungen der Kaiserl. königl. Mährisch-Schlesische Gesellschaft zur Beförderung des Ackerbaus, der Naturund Landeskunde in Brünn, 1852–58. *Brünn.* 4to.

Verhandlungen der Forst-Section für Mähren und Schlesien 1850, pp. 411—477; 1851, Heft 1—3; 1853, 4; 1854–57; 1858, 1—3. *Brünn.* 8vo.

# Werner-Verein zur geolog. Durchforschung von Mæhren und Schlesien.

Erster Jahresbericht der Direktion des Werner-Vereins zur geologischen Durchforschung von Mähren und Schlesien für das Verwaltungsjahr 1851-52. Wien, 1852. 8vo. pp. 82.

Zweiter Jahresbericht 1852. Wien, 1853.

Dritter " 1853. " 1854.

Fünfter " 1856. Brünn, 1856.

Sechster " 1856. " 1857.

Siebenter " 1857. " 1858.

# CRACAU.

# Uniwersytet Krakowski.

Rocznik Towarzystwa Naukowego z Uniwersytetem Krakowskim polaczonego. Tom I—XV. w Krakowie, 1817—1833. 8vo.

### CRACAU.

# Uniwersytet Krakowski.—Continued.

Rocznik Towarzystwa Naukowego Krakowskiego z Uniwersytetem Jagiellonskim polaczonego (zlaczonego). Roczet Nowy. Tom II—VIII. w Krakowie, 1843—1252. 8vo.

Roeznik Ces. Król. Towarzystwa Naukowego Krakowskiego. Roezet Trzeci. Tom I. w Krakowic, 1858. 8vo.

### CZERNOWITZ.

# Verein fur Landeskultur und Landeskunde im Herzogthume Bukowina.

Mittheilungen des Vereins für Landeskultur und Landeskunde im Herzogthume Bukowina. Neue Folge. Band I, Hfte 1—3. *Czernowitz*, 1857–58. 8vo.

### DARMSTADT.

# Gartenbau-Verein.

Zeitsehrift des Gartenbau-Vereins zu Darmstadt. Jahrg. VI, 1857. Darmstadt. 8vo. pp. 35.

### DRESDEN.

# Das Kænigliche Mineralogische Museum.

Das Königliche Mineralogische Museum in Dresden, geschildert auf Hohe Veranlassung von Hanns Bruno Geinitz. *Dresden*, 1858. Svo. pp. 110.

# Verein fur Huhnerzucht.

Statuten des Vereins für Hühnerzneht zu Dresden. Dresden, 1855. Svo. pp. 2.

Mitglieder-Verzeichniss und Jahresbericht des Vereins für Hühnerzucht zu Dresden, 1856. Dresden, 8vo. pp. 15.

### GR.ETZ.

# Historischer Verein für Inneræsterreich.

Schriften des Historischen Vereines für Innerösterreich. In zwanglosen Heften. Heft I. Grätz, 1848. 8vo.

#### GRÆTZ.

### Das Steiermarkisch-stændische Joanneum.

Vierunddreissigster Jahresbericht des Steiermarkisch-ständischen Joannenms zu Grätz für das Schuljahr 1845. Herausgegeben von den Curatoren dieses Institutes. Grätz, 1846. 4to. pp. 46.

Vierzigster Jahresbericht 1851. *Grätz*, 1852. 4to. pp. 30.

### Historischer Verein für Steiermark.

Mittheilungen des Historischen Vereines für Steiermark. Herausgegeben von dessen Ausschusse. Hfte IV. Grütz, 1850–55. 8vo.

Die Steiermarkischen Schützen-Freiwilligen-Bataillone und ihre Leistungen in den Jahren 1848 und 1849. Herausgegeben von dem Ausschusse des Historischen Vereines für Steiermark. Grütz, 1857. 8vo. pp. 47.

## Steiermarkischer Industrie- und Gewerbe-Verein.

Bericht des Steiermärkischen Industrie- und Gewerbe-Vereins der Zehnten Versammlung in Grätz am 22 April 1852. *Grätz*, 1852. 4to. pp. 6.

XI. Versammlung 1853. 4to.

XII. " 1854. 4to.

XIII. " 1855. 4to. XVI. " 1858. fol.

Industrie-Verein. Steiermarkische Abtheilung. Rechnungs-Ausweis für das Jahr 1850. Idem für das Jahr 1851.Grätz, 1851, 1852. 4to. broadside.

Industrie- und Gewerbe-Blatt. Herausgegeben vom Steiermarkischen Industrie- und Gewerbe-Verein. Jahrg. I, II, III, Nos. 1—47. Grätz, 1856-58. 4to.

# Verein zur Befærderung und Unterstutzung der Industrie und der Gewerbe in Inneræsterreich.

Protokoll der fünften allgemeinen Versammlung des Vereines zur Beförderung und Unterstützung der Industrie und der Gewerbe in Innerösterreich, dem Lande ob der Enns und Salzburg, abgehalten am 30 März 1843 Grütz. 4to.

### GRÆTZ.

# Verein zur Befærderung und Unterstutzung der Industrie und Gewerbe in Inneræsterrich.—Cont'd.

der Seehsten Versammlung 17 October 1844. " Siebenten 3 April 1846. " Aehten 21 Juni 1847. " Neunten 5 Decem. 1850. " Zehnten 22 April 1852. " Eilften 7 1853. " Zwölften " 17 Februar 1854. " Dreizehnten 18 März 1855. " Vierzehnten 1856. " Fünfzehnten " 19 1857.

"

" Sechzelinten

Berichte der Direction des Vereines zur Beförderung und Unterstützung der Industrie und der Gewerbe in Innerösterreich, dem Lande ob der Enns und Salzburg, über ihre Wirksammkeit seit der am 21 Juli 1847 in Grätz abgehaltenen achten allgemeinen Versammlung, nebst der zweiten Ergänzung zur II Auflage des Bücherkatalogs der Directions-Bibliothek. Grätz, 1849. 16mo. pp. 16.

21

1858.

Bericht der Direction des Vereines zur Beförderung und Unterstützung der Industrie und der Gewerbe in Innerösterreich, dem Lande ob der Enns und Salzburg. Erstattet der neunten in Grätz am 5 December 1850 abgehaltenen allgemeinen Versammlung der Vereinsmitglieder.

Grætz, 1850. 4to. pp. 8.

Bericht über sämmtliche Erzeugnisse, welche für die erste zu Klagenfurt im Jahre 1838 veranstaltete, und bei Gelegenheit der Anwesenheit Sr. Majestät des Kaisers eröffnete Industrie-Ausstellung des Vereines zur Beförderung und Unterstützung der Industrie und der Gewerbe in Innerösterreich. Grätz. 1839. 8vo.

Zweite Ausstellung zu Grätz 1841. Grütz, 1843. Dritte "zu Laibach 1844. "1845.

Verzeichniss der zur dritten, bei Gelegenheit der hochbeglückenden Anwesenheit Allerhöchst ihrer Majestaten des Kaisers und der Kaiserin in Laibach, am 4 September

### GRÆTZ.

# Verein zur Befærderung und Unerstutzung der Industrie und Gewerbe in Inneræsterreich.—Cont'd.

1844 eröffneten, von der Direction des Vereins zur Beförderung und Unterstützung der Industrie und Gewerbe in Innerösterreich. *Laibach*. 8vo. pp. 30.

Verzeichniss der zu der von Seite des Vereins zur Beförderung und Unterstützung der Industrie und Gewerbe in Innerösterreich, dem Lande ob der Enns und Salzburg veranstalteten vierten Gewerbe-Production-Ausstellung zu Linz im September 1847 eingesendeten Ausstellungs-Gegenstände, nebst Namen der Aussteller und Bezeichnung der verkäuflichen Artikel. Linz, 1847. 8vo. pp. 42.

### HERMANNSTADT.

# K. K. Katholisches Staats-Gymnasium.

Programm und Jahresbericht des K. k. katholischen Staats-Gymnasiums in Hermannstadt für das Schuljahr 1856. Hermannstadt, 1856. 4to. pp. 46.

Programm des Gymnasiums A. C. zu Hermannstadt für das Schuljahr 1852–3. *Hermannstadt*, 1853. 4to. pp. 51.

# Siebenburgischer Verein fur Naturwissenschaften.

Verhandlungen und Mittheilungen des Siebenbürgischen Vereins für Naturwissenschaften zu Hermannstadt. Jahrg. I—VII; IX, 1—6. Hermannstadt, 1850–58.

Statuten des Siebenbürgischen Vereins für Naturwissenschaften zu Hermannstadt. *Hermannstadt*, 1855. 8vo. pp. 7.

#### INNSBRUCK.

### Ferdinandeum.

Fresken-Cyclus des Schlosses Runglstein bei Bozen. Nach original Gemälden gezeichnet u. lithografirt von Ignaz Seelos. Herausgegeben von dem Ferdinandeum in Innsbruck. Oblong. pp. 10.

### KARLSBAD.

# Montanischer Verein im Erzgebirge.

Zeitsehrift des Montanischen Vereines im Erzgebirge. 1856, Nos. 1—12. Karlsbad, 4to.

# KLAGENFURT.

## K. K. kærntnerische Landwirthschaft-Gesellschaft.

Mittheilungen über Gegenstände der Landwirthschaft und Industrie Kärntens. Herausgegeben von der k. k. Landwirthschaft Gesellschaft und dem Gewerbe- und Industrie-Vereine in Kärnten. Jahrg. I—XIV; XV, 1—9. Klagenfurt, 1844-58. 4to.

## Naturhistorisches Landesmuseum von Kærnten.

Jahrbuch des Naturhistorischen Landesmuseums von Kärn-Herausgegeben von J. L. Canaval. Jahrg. I-III. Klagenfurt, 1852-54. Svo.

### LEIPZIG.

# Deutsche Morgenlændische Gesellschaft.

Indische Studien. Beiträge für die Kunde des indischen Alterthums. Im Vereine mit mehreren Gelehrten herausgegeben von Dr. Albrecht Weber. Mit Unterstützung der Deutschen Morgenländischen Gesellschaft. Bde I-IV. Berlin, 1850-58. Svo.

(Wanting III, 1.)

# Kæniglich Sæchsische Gesellschaft der Wissenschaften.

Hansen (P. A.). Theorie der Sonnenfinsternisse und verwandten Erscheinungen. Leipzig, 1858. Svo.

HANKEL (W. G.). Elektrische Untersuchungen. Dritte Abhandlung: Ueber Elektricitätserregung zwischen Metallen und erhitzten Salzen. Leipzig, 1858. Svo.

### Statistisches Central-Archiv.

Beriehte des Statistischen Central-Archives von Dr. Otto Hübner zu Berlin. Nos. 1, 2. Grossbrittannien und Irland. Leipzig, 1858. fol.

#### LEIPZIG.

### Miscellanea.

Illustrirter Kalender für 1852, 1856, 1858, 1859. Leipzig. royal 8vo.

### LEUTSCHAU.

# Evangelisches Gymnasium zu Resmark.

Programm des evang. Gymnasiums A. C. zu Resmark für das Schuljahr 1855–56. *Leutschau*. 4to. pp. 20.

#### LINZ.

## Handels- und Gewerbekammer Oberæsterreichs.

Jahres-Bericht der Handels- und Gewerbekammer für das Erzherzogthum ob der Enns über Industrie, Handel und Verkehr für die Jahre 1854, 1858 und 1856. *Linz*, 1857. 8vo.

Auszug aus dem Statistischen Berichte der Handels- und Gewerbekammer Oberösterreichs für das Jahr 1856. Linz, 1857. 8vo.

### Museum Francisco-Carolinum.

Fünfter Bericht über das Museum Francisco-Carolinum. Linz, 1841. 8vo.

Eilfter Bericht. Linz, 1850.

Dreizehnter " 1853.

Vierzehnter " 1854.

Fünfzehnter " 1855.

Sechszehnter " 1856.

Siebenzehnter " 1857.

Beiträge zur Landeskunde für Oesterreich ob der Enns und Salzburg. Lief. 1—5, 8—12. Linz, 1840—1846, 1853—1857. 8vo. [Combined with the preceding "Beriehte."]

Verzeichniss der im Museum Franzisko-Carolinum vorhandenen Druekschriften. *Linz*, 1845. Svo.

### LÜNEBURG.

# Naturwissenschaftlicher Verein.

Siebenter Jahresbericht über die Thätigkeit des Naturwissenschaftlichen Vereins für das Fürstenthum Lüneburg. Lüneburg, 1858. 4to. pp. 4.

### MARBURG.

# Gesellschaft zur Befærderung der gesammten Naturwissenschaften.

Der Wetterauer Gesellschaft für Naturkunde zur Feier ihres fünfzigjährigen Bestehens am 11 August 1858 im Namen der Gesellschaft zur Beförderung der gesammten Naturwissenschaften zu Marburg. Marburg. 4to. pp. 25.

### MELK.

# K. K. Obergymnasium.

Sechster Jahres-Bericht des Kaiserlich königlichen Obergymnasiums zu Melk. Wien, 1856. 4to. pp. 28.

# MÜNCHEN.

# Kæniglich-Bayerische Akademie der Wissenschaften.

- Neue historische Abhandlungen der Churfürstlichen baierischen Akademie der Wissenschaften. Bde I—V. München, 1779-98. 4to.
- Neue historische Abhandlungen der baierischen Akademie der Wissenschaften. Bde I, II. München, 1804. Svo.
- Abhandlungen der Baierischen Akademie über Gegenstände der schönen Wissenschaften. Band I. München, 1781. 8vo.
- Physikalische Abhandlungen der Königlich-baierischen Akademie der Wissenschaften. Abth. I, II. München, 1803, 1806. 8vo.
- Denkschriften der Königlichen Akademie der Wissenschaften zu München für die Jahre 1808—1812. München, 1809—1812. 4to.

## MÜNCHEN.

# Polytechnischer Verein für das Konigreich Bayern.

Gesammelte Schriften des Johann Nep. v. Fuchs. Zum ehrenden Andenken herausgegeben von dem Central-Verwaltungs-Ausschusse des Polytechnischen Vereins für das Königreich Bayern. München, 1856. 4to.

# Kenigliche Sternwarte.

- Jahres-Bericht der Königlichen Sternwarte bei München für 1852 & 1854. München, 1852, 1854. 8vo.
- Jahrbuch der Königlichen Sternwarte bei München, für 1838, 1839, 1840, 1841. Verfasst und herausgegeben von Dr. J. LAMONT. Jahrg. I—IV. München. 12mo.
- Astronomische Beobachtungen, angestellt auf der Königl. Sternwarte zu Bogenhausen von dem ordeutlichen Mitgliede der Akademie der Wissenschaften J. Solder. Theile I—IV. München, 1834–38. 4to.
- Astronomischer Kalender für das Königreieh Bayern auf das gemeine Jahr 1850 verfasst und herausgegeben an der königl. Sternwarte bei Münehen von Dr. J. LAMONT. Idem 1851—1853. *Münehen*, 1849–52. 8vo.
- Annalen fur Meteorologie, Erdmagnetismus und verwandte Gegenstände. Herausgegeben von Dr. J. Lamont. Jahrg. 1842—1844. Hfte I—XII. München, 1842—1844. Svo.
- Beobachtungen des Meteorologischen Observatoriums auf dem Hohen Peissenberg von 1792—1850, auf öffentliche Kosten herausgegeben von Dr. J. LAMONT. I. Supplementband zu den Annalen der Münchener Sternwarte. München, 1851. 8vo.
- Meteorologische Beobachtungen aufgerzeichnet an der Königl. Sternwarte bei München in den Jahren 1825—1837. II. Supplementband zu den Annalen der Münchener Sternwarte. München, 1857. Svo.
- Bestimmung der Horizontal-Intensitæt des Erdmagnetismus nach absolutem Mass. Von Dr. J. LAMONT. München, 1842. 4to. pp. 53.
- Resultate des magnetischen Observatoriums in München während der dreijährigen Periode 1843—1844—1845. Beigefügt sind: Magnetische Messungen auf einer Reise

### MÜNCHEN.

# Kenigliche Sternwarte.—Continued.

nach Deutschland und Frankreich im Jahre 1844 von Dr. J. A. Aangstrom. *München*, 1846. 4to.

Resultate aus den an der königl. Sternwarte veranstalteten meteorologischen Untersuchungen, nebst Andeutungen über den Einfluss des Clima von München auf die Gesundheits-Verhältnisse der Bewohner. Von Dr. J. LAMONT. München, 1857. 4to. pp. 59.

Beschreibung der an der Münchener Sternwarte zu den Beobachtungen verwendeten neuen Instrumente und Apparate. Von Dr. LAMONT. Mit 8 Tafeln. München, 1851. 4to. pp. 101.

### OLMÜTZ.

# K. K. Gymnasium.

Jahres-Berieht über das Kaiserl. königl. Gymnasium zu Olmütz während des Schuljahres 1856. Olmütz, 1856. 4to. pp. 43.

### PASSAU.

# Praktische Gartenbau Gesellschaft in Bayern.

Vereinigte Frauendorfer Blätter. Herausgegeben von der Praktischen Gartenbau-Gesellschaft in Bayern. Redigirt von Eugen Fuerst. Jahrg. 1857, 1858. Passau. 4to.

### PESTH.

# Geologische Gesellschaft für Ungarn.

Erster Bericht der geologischen Gesellschaft für Ungarn. Herausgegeben von Julius v. Kovats. Pest, 1852. Svo. pp. 39.

# Kiralyi Magyar Termeszettudomanyi Tarsulat.

A' Magyar Természettudományi Társulat évi Jelentése Tagjairól es Müködesiröl (Annual Reports of Members and Proceedings of the Hungarian Society of Natural Science), 1851–56. *Pesten*, 1857. 8vo. pp. 41.

A' Magyar Természettudományi Társulat Evkönyvei. I—III, 1841–56. *Pesten*, 1851–57. 8vo.

### PESTH.

# Pesther Obergymnasium.

Programm des Pester Obergymnasiums für das Schuljahr 1856-7. *Pesten*, 1857. 4to. pp. 35.

## PRAG.

# Bæhmischer Gewerbverein.

Denkschrift des böhmischen Gewerbvereins über den Auschluss Oesterreichs au den teutschen Zollverein. *Prag*, 1848. 8vo. pp. 46.

### PRESBURG.

### Verein für Naturkunde.

Verhandlungen des Vereins für Naturkunde zu Presburg. Presburg, 1856, 1857. 8vo.

### REICHENBERG.

# Œffentliche sechsklassige Ober-Realschule.

Fünfter Jahres Bericht der öffentlichen Sechsklassigen Ober-Realschule zu Reichenberg. 1856. Reichenberg. 8vo. pp. 36.

### SALZBURG.

### K. K. Landwirthschaft Gesellschaft.

Wochenblatt der k. k. Landwirthschaft Gesellsehaft in Salzburg. Jahrg. VIII, Nos. 1—6, 8—10, 1858. 8vo.

#### STETTIN.

# Entomologischer Verein.

Catalogus Coleopterorum Europæ. Herausgegeben vom Entomologischen Vereine in Stettin. Siebente Auflage. Stettin, 1858. 8vo.

### STUTTGART.

# Das heilgymnastische Institut.

Dritter Bericht über das heilgymnastische Institut vor dem Esslinger Thor Nro. 1 in Stuttgart von seinem Gründer

### STUTTGART.

# Das heilgymnastische Institut.——Continued.

und Leiter Herman Steudel und dem Arzt der Austalt Dr. Otto Gærtner. Stuttgart, 1858. 4to. pp. 30.

# Das Kenigliche Staatsarchiv.

Wirtembergisches Urkundenbuch. Herausgegeben von dem Königlichen Staatsarchiv in Stuttgart. Band II. Stuttgart, 1858. 4to.

# Verein zur Fursorge fur entlassene Strafgefangene.

Zehnter Rechensehaftsbericht des Vereins zur Fürsorge für entlassene Strafgefangene im Königreich Württemberg erstattet den 3 Februar 1856 in der allgemeinen Versammlung dieses Vereines von dem Centralausschuss desselben. Stuttgart, 1856. 8vo. pp. 79.

Eilfter Rechenschaftsbericht 30 November 1857.

### Miscellanea.

Neues Jahrbuch für Mineralogie, Geognosie, Geologie und Petrefakten-Kunde. Herausgegeben von Dr. K. C. von Leonhard und Dr. H. G. Bronn. Jahrg. 1842. Stuttgart, 1842. 8vo.

#### TRIEST.

# Civico Museo Ferdinando Massimiliano.

Civico Museo Ferdinando Massimiliano in Trieste. Alto Protettorato, Cenni Storici, e Statuto. 1846—1856. Trieste, 1856. 4to. pp. 61.

### K. K. Marine-Sternwarte.

Magnetische Beobachtungen, im östlichen Theile des Mittelmeeres auf Befehl Seiner k. k. Hoheit des durchlauchtigsten Herrn Erzherzogs Ferdinand Max, Obercommandanten der Kaiserl. Königl. Marine, ausgeführt im Jahre 1857 von Dr. F. Schaub. Triest, 1858. 4to. pp. 37.

# TÜBINGEN.

# Die Heilanstalt Mariaberg.

Neunter Jahresbericht über die Heilanstalt Mariaberg für schwachsinnige Kinder vom 1sten Juli 1855 bis 1sten Juli 1856. Tübingen, 1856. 8vo.

Zehnter Jahresbericht vom Juli 1856 bis Juli 1857. Elfter " " 1857 • " 1858.

### WEILBURG.

# Verein Nassau'scher Aerzte.

Correspondenzblatt des Vereins Nassau'scher Aerzte für das Jahr 1857. Redigirt von Dr. Peter Menges. Weilburg. Svo.

### WIEN.

# Doctoren-Collegium der medicinischen Facultæt.

Jahres-Bericht (Zweiter) über die wissenschaftlichen Leistungen des Doctoren-Collegiums der medicinischen Fakultät zu Wien, unter dem Dekanate der Dr. Jos. Schneller im Jahre 1850-51. Wien, 1852. 8vo. pp. 24. Dritter Jahres-Bericht 1852-53. Wien, 1853.

Vierter " 1853–54. " 1854. Fünfter " 1854–55. " 1855. Sechster " 1855–56. " 1856.

Preyss (Dr. G.). Rede zum Andenken Georg Josef Beer's, gehalten bei Gelegenheit der siebenten Jahresfeier der wissenschaftlichen Thätigkeit des Doctoren-Collegiums der Wiener medicinischen Facultät am 18 April 1857. Wien, 1857. 4to. pp. 8.

# International Congress fur Statistik.

Rechenschafts-Bericht über die dritte Versammlung des Internationalen Congresses für Statistik, abgehalten zu Wien vom 31. August bis 5. September 1857. Wien, 1858. 4to.

Bericht der kais. kön. Sections-Chefs und Directors der administrativen Statistik, Freiherrn von Czærnig, an die Vorbereitungs-Commission der dritten Versammlung des

#### WIEN.

# International Congress fur Statistik.—Continued.

Internationalen statistischen Congresses über den Entwurf eines Programmes für die Verhandlungen dieser Versammlung. Wien, 1857. 8vo.

### K. K. Gartenbau Gesellschaft.

Verhandlungen der k. k. Gartenbau-Gesellschaft in Wien im Jahre 1858. Heft 1. 8vo.

# K. K. Geographische Gesellschaft.

Ansprache gehalten in der zweiten Jahresversammlung der Kaiserlich-königlichen Geographischen Gesellschaft in Wien am 9 November 1858. Wien, 1859. 8vo. pp. 12.

# K. K. Geologische Reichsanstalt.

Geologische Uebersicht der Bergbaue der Oesterreichischen Monarchie. Im Auftrage der Kaiserlich-königlichen Geologischen Reichsanstalt zusammengestellt von FRANZ RITTER VON HAUER und FRANZ FOETTERLE, mit einem Vorworte von Wilhelm Haidinger. Wien, 1855. 8vo.

Geologische Uebersicht der Bergbaue der Oesterreichischen Monarchie. Im Auftrage der K. K. Geologischen Reichsanstalt zusammengestellt von Franz Ritter von Hauer und Franz Fætterle, mit einem Vorworte von Wilhelm Haidinger. Wien, 1855. Svo.

Katalog der Bibliothek des K. K. Hof-Mineralien-Cabinetes in Wien. Zusammengestellt von Paul Bartsch. Herausgegeben von der Kais. Kön. Geologischen Reichsanstalt. Wien, 1851. 8vo.

### K. K. Landwirthschafts-Gesellschaft.

Amtlicher Bericht über die im Mai 1857 abgehaltene fünfzigjährige Jubelfeier der k. k. Landwirthschafts-Gesellschaft in Wien. Wien, 1858. 8vo.

Katalog der land- und forstwirthschaftlichen Ausstellung veraustaltet von der k. k. Landwirthschafts-Gesellschaft in Wien. Wien, 1857. 8vo.

### WIEN.

### K. K. Landwirthschafts-Gesellschaft.—Continued.

Katalog der mit der land- und forstwirthschaftlichen Ausstellung vereinigten Ausstellung der Gegenstände des Haushaltes des Land und Forstwirthes. Wien, 1857. Svo. pp. 47.

# K. K. Ober-Gymnasium zu den Schotten.

Jahresbericht des Kais. kön. Ober-Gymnasiums zu den Schotten in Wien am Schlusse des Schuljahres, 1856, 1857. Wien. 4to.

# SWITZERLAND.

# Versammlung Schweizerischer Naturforscher.

Eröffuungsrede der 43sten Versammlung Schweizerischer Naturforscher in Bern durch den Präsidenten Prof. Dr. B. Studer den 2 August 1858. 8vo. pp. 28.

#### BASEL.

# Gesellschaft zur Befærderung des Guten und Gemeinnutzigen.

Geschichte der Gesellschaft zur Beförderung des Guten und Gemeinnützigen in Basel. Einundachtzigstes Jahr 1857. Basel, 1858. 8vo.

#### LAUSANNE.

# Asile des Aveugles de Lausanne.

Rapports présentés au Conseil général de l'Asile des Aveugles de Lausanne par le Comité, le Médecin et le Directeur de cet établissement pour les Années 1850, 1851 et 1852. Lausanne, 1853. 8vo.

# Bibliotheque Cantonale Vaudoise.

Catalogue de la Bibliothèque Cantonale Vaudoise. I. Généralites. II. Histoire. Lausanne, 1854. 8vo.

#### LAUSANNE.

# College Cantonal de Lausanne.

Règlement pour le College Cantonal. Lausanne, 1847. 8vo. pp. 58.

# Ecole Speciale de Lausanne.

Programme des Connaissances exigées pour l'admission à l'Ecole Spéciale de Lausanne. Lausanne, 1854. 8vo. pp. 14.

### Institution Heuchoz a Chateau d'Oex.

Règlement pour l'Institution Heuchoz à Chateau d'Oex. Lausanne, 1850. Svo. pp. 29.

### Institut des Sourds-Muets a Yverdon.

Institut des Sourds-Muets à Yverdon. Projet de Décret,
etc. Lausanne, 1841. 12mo. pp. 33.
Règlement sur l'Institut des Sourds-Muets. 8vo. pp. 7.

# Societe Industrielle d'Horlogerie.

Règlement pour la Société Industrielle d'Horlogerie de Lausanne. Lausanne, 1851. 16mo. pp. 12.

### Miscellanea.

Règlement pour les Ecoles Publiques Primaires du Canton de Vaud. Lausanne, 1847. 8vo. pp. 51.

## ZURICH.

# Das Schweizerische Polytechnicum.

Verzeichniss der Bibliothek des Schweizerischen Polytechnicums. Dritte Auflage. Zürich, 1859. Svo.

# Ecole Polytechnique Federale Suisse.

Programme de l'Ecole Polytechnique Fédérale Suisse pour l'Année Scolaire 1856-57. Idem 1857-58, 1858-59. Zürich, 1856-1858. 4to.

# WINTERTHÜR.

### Miscellanea.

Schweizerische Polytechnische Zeitschrift. Herausgegeben von Dr. P. Bolley und J. K. Kronauer, Bde I, II. Winterthür, 1856, 1857. 4to.

# BELGIUM.

### BRUXELLES.

# Societe Royale Linneenne de Bruxelles.

Société Royale Linnéenne de Bruxelles. Exposition extraordinaire de Produits d'Agriculture et d'Horticulture, céreales, légumes, fruits, plantes, fleurs, instruments d'agriculture et de jardinage, qui aura lieu avec le concours du Gouvernement les 23, 24, 25 et 26 septembre, 1859. Bruxelles. 8vo. pp. 19.

## Miscellanea.

Dictionnaire des Sciences Médicales. Tomes I—XIII. Bruxelles, 1828—1830. 8vo.

# FRANCE.

### BORDEAUX.

# Academie de Bordeaux.

Académie de Bordeaux. Le 16 novembre 1857 Rentrée solennelle des Facultés et de l'Ecole Préparatoire de Médecine et de Pharmacie. Compte-Rendus des Travaux de l'Année Scolaire 1856–1857, 1857–1858. Bordeaux, 1857, 1858. Svo.

# Chambre de Commerce de Bordeaux.

Extraits des Procès-Verbaux, Lettres et Mémoires de la Chambre de Commerce de Bordeaux. Seconde série. Vol. I—VIII. Bordeaux, 1851—1857. 8vo.

#### BORDEAUX.

# Chambre de Commerce de Bordeaux.—Continued.

Catalogue des Livres composant la Bibliothèque de la Chambre de Commerce de Bordeaux. Avec Supplément. Bordeaux, 1852. 8vo.

# Societe Philomathique de Bordeaux.

Bulletin de la Société Philomathique de Bordeaux. 2me séric. Année I, 1, 2; II, 1—4; III, 2. Bordeaux, 1856—1858. 8vo.

### CAEN.

# Societe Linneenne de Normandie.

Bulletin de la Société Linnéenne de Normandie. Vol. I. Année 1855-56. Cuen, 1856. 8vo.

### DIJON.

#### Miscellanea.

La Bourgogne. Revue Enologique et Viticole par C. LADREY. Livr. I, 1859. Dijon. Svo.

### MACON.

#### Academie de Macon.

Annales de l'Académie de Macon. Société des Arts, Sciences, Belles-Lettres et d'Agriculture. Rédigées et mises en ordre par Leonce Lenormand. Tomes I—III. Macon, 1851—1855. Svo.

#### MULHOUSE.

### Societe Industrielle de Mulhouse.

Bulletin de la Société Industrielle de Mulhouse. Nos. 145, 146. *Mulhouse*, 1858, 1859. 8vo.

Règlement de la Société Industrielle de Mulhouse. *Mulhouse*, 1856. 8vo. pp. 30.

Programme des Prix proposés par la Société Industrielle de Mulhouse, dans son Assemblée Générale du 26 mai 1858, pour être décernés dans l'Assemblée Générale de mai 1859. *Mulhouse*, 1858. 8vo. pp. 48.

### NANCY.

### Academie de Stanislas.

Mémoires de l'Académie de Stanislas, 1857. Nancy, 1858. Svo.

## ORLEANS.

# Societe Archeologique de l'Orleanais.

Mémoires de la Société Archéologique de l'Orléanais. Tomes II, III, IV. Orléans et Paris, 1853—1858. Svo. Idem. Atlas. Tomes II, IV. fol.

### PARIS.

# Bibliotheque Imperiale.

Bibliothèque Impériale—Département des Imprimés. Catalogue de l'Histoire de France. Publié par ordre de l'Empéreur. Tomes I—V. *Paris*, 1855—1858. 4to.

Bibliothèque Impériale—Département des Imprimés. Catalogue des Sciences Médicales. Publié par ordre de l'Empéreur. Tome I, Livr. 1. *Paris*, 1857. 4to.

# Depot des Cartes et Plans de la Marine.

Annales Hydrographiques, Recueil d'Avis, Instructions, Documents et Mémoires relatifs à l'Hydrographie et à la Navigation, publié au Dépôt des Cartes et Plans de la Marine. Tomes VII—XV. Paris, 1852—1858. 8vo.

Kerhallet (C. P. de). Manuel de la Navigation à la Côte Occidentale d'Afrique. Tomes I—III. Paris, 1857—1858. Svo.

# Ecole Polytechnique.

JAMIN (M. J.). Cours de Physique de l'Ecole Polytechnique. Vol. I. Paris, 1858. 8vo.

### Institut de France.

Histoire de l'Académie Française par Pellison et D'OLIVET.

A vec une Introduction, des Eclaireissements et Notes par

M. Ch. L. Livet. Tomes I, II. Paris, 1858. Svo.

#### PARIS.

# Institut de France: Academie des Inscriptions et Belles-Lettres.

Mémoires de l'Institut Impérial de France, Académie des Inscriptions et Belles-Lettres. Tomes XIV—XIX; XX, 2; XXI; XXIII, 2. Paris, 1845—1858. 4to.

Mémoires présentés par divers Savants à l'Académie des Inscriptions et Belles-Lettres de l'Institut Impérial de France. Première série.—Sujets divers d'Erudition. Tomes I—V. Deuxième série.—Antiquités de la France. Tomes I—III. Paris, 1844—1858. 4to.

Notices et Extraits des Manuscrits de la Bibliothèque Impériale et autres Bibliothèques, publié par l'Institut Impérial de France, faisant suite aux Notices et Extraits lus au Comité établi dans l'Académie des Inscriptions et Belles-Lettres. Tomes XI—XIV, XVI, XVII, XVIII, 1; XIX, 2. Paris, 1827—1858. 4to.

# Institut de France: Academie des Sciences.

Mémoires de l'Académie des Sciences de l'Institut Impérial de France. Tomes XXIV, XXVII, 1. Paris, 1854, '856. 4to.

moires présentés par divers Savants à l'Académie des Sciences de l'Institut Impérial de France et imprimés par son ordre. Sciences Mathématiques et Physiques. Tomes XII, XIV, XV. Paris, 1854—1858. 4to.

# Institut de France: Academie des Sciences Morales et Politiques.

Mémoires de l'Académie des Sciences Morales et Politiques de l'Institut de France. Tomes VIII, IX. Paris, 1852, 1855. 4to.

# Societe de Secours des Amis des Sciences.

Société de Secours des Amis des Sciences. Fondée le 5 mars 1857 par L. J. Thénard. Compte-Rendu de la première Séance Publique Annuelle, tenue le 15 avril 1858 dans le local de la Société d'Encouragement. *Paris*, 1858. Svo.

#### PARIS.

# Societe Geologique de France.

Bulletin de la Société Géologique de France. Tomes I— VI. Paris, 1830—1835. 8vo.

# Societe Imperiale et Centrale d'Horticulture.

Société Impériale et Centrale d'Horticulture. Rapport fait au nom de la Commission de Comptabilité sur les comptes de l'Exercice 1858. *Paris*, 1859. 4to. pp. 12.

### Societe Linneenne de Paris.

Mémoires de la Société Linnéenne de Paris, précédés de son Histoire pendant les Années 1823—1827. Tomes III—VI. Paris, 1825—1828. 8vo.

# Societe Medicale Allemande de Paris.

Recueil de Travaux lus à la Société Médicale Allemande de Paris. Publié par MM. H. Meding et A. Martin. Première Année. *Paris*, 1858. 8vo.

### Societe Orientale de France.

Revue de l'Orient de l'Algérie et des Colonies, Bulletin de la Société Orientale de France. Recueil consacré à l'étude de la Géographie, de l'Histoire, des Voyages, de la Littérature, des Sciences, de la Colonisation, de l'Agriculture, du Commerce, des Religions, des Moeurs et Coutumes des Peuples, des diverses Contrées de l'Orient, etc. Rédigé avec le concours de la Société Orientale et avec la collaboration de Membres de l'Institut, d'Orientalistes, de Consuls et de Voyageurs. Nouvelle série. Tomes I—VI. Paris, 1855—1857. 8vo.

### Miscellanea.

Annales des Sciences Naturelles. Tomes I—XXX. Seconde série. Tomes I—V. Paris, 1824—1836. 8vo. Idem. Atlas des Tomes I—XII. Années 1824—1827. Paris. 4to.

Annuaire de Médecine et de Chirurgie pratiques, pour 1855, '56, '57, '58. Paris. 32mo.

ITALY. 219

#### PARIS.

### Miscellanea.—Continued.

Catalogue Annuel de la Librairie Française pour 1858. Publié par Ch. Reinwald. Paris. Svo.

Dictionnaire des Sciences et des Arts. Tomes I—III. Par M. Lunien. Paris, 1806. 8vo.

Encyclopédie Méthodique. Tomes III, VI. Paris, 1777, 1789. 4to.

Tableau Encyclopédique et Méthodique des Trois Règnes de la Nature. Ichthyologie. Par M. l'Abbé Bonna-TERRE. Paris, 1788. 4to.

### TOULOUSE.

# Societe Imperiale de Medecine, Chirurgie et Pharmacie.

Société Impériale de Médecine, Chirnrgie et Pharmacie de Toulouse. Compte-Rendu des Travaux. Depuis le 10 mai 1857 jusqu'au 9 mai 1858. *Toulouse*, 1858. 8vo.

# ITALY.

#### BOLOGNA.

# Scuola Anatomica di Bologna.

MEDICI (M.). Compendio Storico della Senola Anatomica di Bologna dal Rinascimento delle Scienze e delle Lettere a tutto il Secolo XVIII. Con un Paragone fra la sua Antichità e quella delle Scuole di Salerno e di Padova. Bologna, 1857. royal 8vo.

### MILANO.

# Accademia Fisio-medico-statistica di Milano.

Atti dell' Accademia Fisio-medico-statistica di Milano.
Anno Accademico 1857-58. Nnova serie. Vol. III,
Disp. 1—3. Milano, 1858. 8vo.

### MILANO.

### Museo Civico di Milano.

- Collectiones Rerum Naturalium Musaei Mediolanensis. Mollusca Terrestria et Fluviatilia, 1846. royal 8vo. pp. 35.
- Cenni sul Museo Civico di Milano ed Indice Sistematico dei Rettili ed Anfibi esposti nel medesimo. *Milano*, 1857. 8vo. pp. 61.

## Museo dei Fratelli Villa.

- Dispositio Systematica Conchyliarum Terrestrium et Fluviatilium quae adservantur in Collectione Fratrum Ant. et Jo. Bapt. Villa. *Mediolani*, 1841. 8vo. pp. 62.
- VILLA (A.). Note su alcuni Insetti osservati nel periodo dell' Ecclisse dell' 8 Luglio, 1842. *Milano*, 1842. Svo. pp. 4.
- del 9 Ottobre 1847. *Milano*. 8vo. pp. 8.
- Sulla Monografia del Bombice del Gelso del Dottor Emilio Cornalia. *Milano*, 1857. 8vo. pp. 11.
- Intorno agli Studj Geologici e Paleontologici sulla Lombardia del Sacerdote Professore Antonio Stappani. *Milano*, 1858. 8vo. pp. 12.
- ———— Intorno tre opere di Malacologia del Sig Drouet di Troyes. *Milano*, 1856. 8vo. pp. 19.
- VILLA (G. B.). Osservazioni Geognostiche e Geologiche fatte in una gita sopra alcuni Colli del Bresciano e del Bergamasco. *Milano*, 1857. 8vo. pp. 8.
- ——— Catalogo dei Coleopteri della Lombardia. *Milano*, 1844. Svo. pp. 77.
- ———— Catalogo dei Molluschi della Lombardia. *Milano*, 1844. pp. 10.
- VILLA (A. e G. B.). Sulla Constituzione Geologica e Geognostica della Brianza e segnatamente sul Terreno Cretaceo. *Milano*, 1844. 8vo. pp. 46.
- Ulteriori Osservazioni Geognostiche sulla Brianza. *Milano*, 1857. 8vo. pp. 8.
- Utilità dei Boschi Montani nella Lombardia specialmente a riparo del Disastri Meteorici, modo di

ITALY. 221

### MILANO.

# Museo dei Fratelli Villa.—Continued.

Rimetterli, Conservarli, e Diffenderli dai Guasti massime degli Insetti. *Milano*, 1847. 8vo. pp. 88.

VILLA (A. e G. B.). Notizie intorno al genere Melania. Memoria Malacologica dei Fratelli Villa. Milano, 1855. 8vo. pp. 10.

# Societa d'Incoraggiamento Arti e Mestieri.

Relazione Annuale sulle Operazioni della Società d'Incoraggiamento Arti e Mestieri. Adunanza Generale dei Socj 24 agosto 1856. *Milano*, 1856. 8vo. pp. 64.

# Societa d'Incoraggiamento di Scienze, Lettere ed Arti.

Discorso letto dal Signor Francesco Peluso nelle sale della Società d'Incoraggiamento di Scienze, Lettere ed Arti, in occasione della Solenne Distribuzione dei Premj d'Orticoltura, il giorno 8 di settembre 1856. *Milano*, 1856. 8vo. pp. 10.

### NAPOLI.

# Reale Accademia delle Scienze e Belle Lettere.

Memorie della Reale Accademia delle Scienze del 1852 in avanti ripartite nelle tri Classi di Matematichi, Scienze Naturali, e Scienze Morali. Vol. I, Fasc. 3; II, 1854— 1857. Napoli, 1857. 4to.

# Regale Accademia Ercolanese di Archeologia.

Memorie della Regale Accademia Ercolanese di Archeologia. Vols. I—VIII. Napoli, 1822—1856. 4to. (From his Majesty, the King of Naples.)

# R. Orto Botanico di Napoli.

Catalogo delle Piante che si coltivano nel R. Orto Botanico di Napoli. Corredato della Piante del medesimo, e di Annotazioni. *Napoli*, 1845. 4to.

#### NAPOLI.

### Miscellanea.

Herevlanensivm Volvminvm qvae svpersvnt. Tomi I—VI, VIII—XI. Neapoli, 1793—1855. fol. (From his Majesty, the King of Naples.)

## GREAT BRITAIN AND IRELAND.

### EDINBURGH.

# Bannatyne Club.

Origines Parochiales Scotiæ. The Antiquities Ecclesiastical and Territorial of the Parishes of Scotland. Vols. I, II. Edinburgh, 1851—1855. 4to.

Registrum Cartarum Ecclesie Sancti Egidii de Edinburgh. A Series of Charters and Original Documents connected with the Church of St. Giles, Edinburgh, 1344—1567. Edinburgh, 1859. 4to.

Original Letters of Mr. John Colville, 1582—1603. To which is added his Palinode, 1600. With a Memoir of the Author. *Edinburgh*, 1858. 4to.

A Catalogue of the Graduates in the Faculties of Arts, Divinity, and Law, of the University of Edinburgh, since its foundation. *Edinburgh*, 1858. 8vo.

### GREENWICH.

# Royal Observatory.

Description of the Galvanic Chronographic Apparatus of the Royal Observatory, Greenwich. London, 1857. 4to.

### LIVERPOOL.

# Historic Society of Lancashire and Cheshire.

Transactions of the Historic Society of Lancashire and Cheshire. Vols. VIII, X. London, 1856, 1858. 8vo.

### British Museum.

- Catalogue of the Tortoises, Crocodiles, and Amphisbænians in the Collection of the British Museum. *London*, 1844. 12mo. pp. 80.
- Catalogue of the Specimens of Snakes in the Collection of the British Museum. London, 1849. 12mo.
- Catalogue of Marine Polyzoa in the Collection of the British Museum. Parts I, II. Cheilostomata. *London*, 1852, 1854. 12mo.
- Catalogue of the Specimens of Lizards in the Collection of the British Museum. *London*, 1845. 12mo.
- Catalogue of the Mollusca in the Collection of the British Museum. Part I.—Cephalopoda Antepedia. II.—Pteropoda. IV.—Brachiopoda Ancylopoda, or Lamp-Shells. London, 1849—1853. 12mo.
- Catalogue of Phaneropneumona, or Terrestrial Operculated Mollusca, in the Collection of the British Museum. London, 1852. 12mo.
- Catalogue of the Specimens of Mammalia in the Collection of the British Museum. Part I. Cretacea. II. Seals. III. Ungulata Furcipeda. London, 1850—1852. 12mo.
- Catalogue of the Genera and Sub-genera of Birds contained in the British Museum. *London*, 1855. 12mo.
- List of the Specimens of British Animals in the Collection of the British Museum. Part XVII. Nomenclator of Anoplura, Euplexoptera, and Orthoptera. London, 1855. 12mo.
- Nomenclature of Coleopterous Insects in the Collection of the British Museum. Part I.—Cetoniadæ. II.—Hydrocanthari. III.—Buprestidæ. IV.—Cleridæ. VI.—Passalidæ. London, 1847—1852. 12mo.
- Bell (T.). Catalogue of Crustacea in the Collection of the British Museum. Part I.—Leucosiadæ. London, 1855. 12mo.
- Boheman (C. II.). Catalogue of Coleopterous Insects in the Collection of the British Museum. Part VII.— Longicornia I. Part VIII.—Longicornia II. Part IX.—Cassididae. London, 1856. 12mo.

# British Museum,-Continued.

- CARPENTER (P. P.). Catalogue of the Collection of Mazatlan Shells, in the British Museum. *London*, 1857. 12mo.
- DESHAYES. Catalogue of the Conchifera or Bivalve Shells in the Collection of the British Museum. Part I. Veneridæ, Cyprinidæ, and Glauconomidæ. II. Petricoladæ (concluded); Corbiculadæ. London, 1853, 1854. 12mo.
- Gray (G. R.). List of the Specimens of Birds in the Collection of the British Museum. Part I. Accipitres. II. Section I—Fissirostres. III. Section I—Ramphastidæ. IV.—Columbæ. London, 1848—1856. 12mo.
- GRAY (J. E.). Guide to the Systematic Distribution of Mollusca in the British Museum. Part I. London, 1857. 8vo.
- British Museum. Part I. Volutidæ. London, 1855.
- Gunther (Dr. A.). Catalogue of Colubrine Snakes in the Collection of the British Museum. *London*, 1858. 8vo.
- Catalogue of the Batrachia Salientia in the Collection of the British Museum. London, 1858. 8vo.
- HAGEN (Dr. H.). Catalogue of the Specimens of Neuropterous Insects in the Collection of the British Museum.Part I. London, 1858. 12mo. pp. 34.
- PFEIFFER (Dr. L.). Catalogue of Auriculidæ, Proserpinidæ, and Truncatellidæ in the Collection of the British Museum. *London*, 1857. 12mo.
- SMITH (F.). Catalogue of Hymenopterous Insects in the Collection of the British Museum. Parts V, VI. London, 1857, 1858. 12mo.
- Vernon Wollaston (T.). Catalogue of the Coleopterous Insects of Madeira in the Collection of the British Museum. *London*, 1857. 8vo.
- Walker (F.). List of the Specimens of Lepidopterous Insects in the Collection of the British Museum. Parts XI—XVI. London, 1857—1858. 12mo.

# British Museum.—Continued.

- WALKER (F.). List of the Specimens of Homopterous Insects in the Collection of the British Museum. Supplement. London, 1858. 12mo.
- Walton (J.). List of British Curculionide, with Synonyma. *London*, 1856. 12mo. pp. 46.
- White (A.). Catalogue of Colcopterous Insects in the Collection of the British Museum. Part VIII. Longicornia II. London, 1855. 12mo.
- List of the Specimens of British Animals in the Collection of the British Museum. Part V.—Lepidoptera. [First edition.] London, 1850. 12mo.
- List of the Specimens of British Animals in the Collection of the British Museum. Part I.—Centroniæ or Radiated Animals. II.—Sponges. III.—Birds. IV.—Crustacea. V.—Lepidoptera. VI.—Hymenoptera. VII.—Mollusca, Acephala, and Brachiopoda. VIII.—Fish. IX.—Eggs of British Birds. X.—Lepidoptera. XI.—Anoplura, or Parasitic Insects. XII.—Lepidoptera. XIII.—Nomenclature of Hymenoptera. XIV.—Nomenclature of Neuroptera. XV.—Nomenclature of Diptera, I. XVI.—Lepidoptera (completed). XVII.—Nomenclature of Anoplura, Euplexoptera, and Orthoptera. London, 1848—1855. 12mo.
- List of the Osteological Specimens in the Collection of the British Museum. *London*, 1847. 12mo.
- List of the Specimens of Mammalia in the Collection of the British Museum. London, 1843. 12mo.
- Catalogue of the Specimens and Drawings of Mammalia and Birds of Nepal and Thibet presented by B. H. Hodgson, Esq., to the British Museum. *London*, 1846. 12mo.
- List of the Specimens of Fish in the Collection of the British Museum. Part I.—Chondropterygii. London,. 1851. 12mo.
- KAUP (J. J.). Catalogue of Lophobranchiate Fish in the Collection of the British Museum. London, 1856. 12mo.
   15.

### British Museum.—Continued.

- KAUP (Dr.). Catalogue of Apodal Fish in the Collection of the British Museum. *London*, 1856. Svo.
- Gronow (L. T.). Catalogue of Fish collected and described by Laurence Theodore Gronow, now in the British Museum. *London*, 1854. 12mo.
- Catalogue of Pulmonata or Air-Breathing Mollusca in the Collection of the British Museum. Part I. London, 1855. 12mo.
- Catalogue of the Bivalve Mollusca in the Collection of the British Museum. Part I.—Placentadæ and Anomiadæ. London, 1850. 12mo. pp. 22.
- Catalogue of the Recent Echinida, or Sea Eggs, in the Collection of the British Museum. Part I.—Echinida Irregularia. *London*, 1855. 12mo.
- Catalogue of the Species of Entozoa, or Intestinal Worms, contained in the Collection of the British Museum. *London*, 1853. 12mo.
- Nomenclature of Molluscous Animals and Shells in the Collection of the British Museum. Part I.—Cyclophoride. *London*, 1850. 12mo.
- List of the Specimens of Myriapoda in the Collection of the British Museum. London, 1844. 12mo. pp. 15.
- Newport (G.). Catalogue of the Myriapoda in the Collection of the British Museum. Part I.—Chilopoda. London, 1856. 12mo.
- List of the Specimens of Crustacea in the Collection of the British Museum. London, 1847. 12mo.
- Catalogue of the Specimens of Amphibia in the Collection of the British Museum. Part II.—Batrachia Gradientia, etc. *London*, 1850. 12mo.
- GRAY (J. E.). Catalogue of Shield Reptiles in the Collection of the British Museum. Part I.—Testudinata (Tortoises). London, 1855. 4to. pp. 79.
- D'Orbigny (Prof. A.). List of the Shells of the Canaries in the Collection of the British Museum. Collected by MM. Webb and Berthelot. London, 1856. 12mo. pp. 32.

## British Museum.—Continued.

- D'Orbigny (Prof. A.). List of the Shells of South America in the Collection of the British Museum. London, 1854. 12mo. pp. 89.
- List of the Shells of Cuba in the Collection of the British Museum. Collected by M. Ramon de la Sagra. *London*, 1854. 12mo. pp. 48.
- Eypoux and Souleyer. List of Mollusca and Shells in the Collection of the British Museum. *London*, 1855. 12mo. pp. 27.
- List of the Coleopterous Insects in the Collection of the British Museum. Part I.—Cucujidæ. London, 1851. 12mo. pp. 25.
- List of the Specimens of Hymenopterous Insects in the Collection of the British Museum. Parts I, II.—Chaleidites. London, 1846, 1848. 12mo.
- SMITH (F.). Catalogue of Hymenopterous Insects in the Collection of the British Museum. Part I.—Andrenidæ and Apidæ. II.—Apidæ. III.—Mutillidæ and Pompilidæ. IV.—Sphegidæ, Larridæ, and Crabronidæ. London, 1853—1856. 12mo.
- Catalogue of British Hymenoptera in the Collection of the British Museum. Part I.—Apidæ (Bees).
   London, 1855. 12mo.
- Desvignes (T.). Catalogue of British Ichneumonidæ in the Collection of the British Museum. *London*, 1856. 12mo.
- Catalogue of the Specimens of Neuropterous Insects in the Collection of the British Museum. Part I.—Phryganides—Perlides. II.—Sialide—Nemopterides. III.—Termitide—Ephemeride. IV.—Odonata. London, 1852, 1853. 12mo.
- Catalogue of Lepidopterous Insects in the Collection of the British Museum. Part I.—Papilionidæ. London, 1852. 4to. pp. 84.
- List of the Specimens of Dipterous Insects in the Collection of the British Museum. Parts I—VII. (Suppl. I—III.) London, 1848—1855. 12mo.
- List of the Specimens of Homopterous Insects in the Col-

# British Museum .- Continued.

lection of the British Museum. Parts I, II. London, 1850, 1851. 12mo.

List of the Specimens of Hemipterous Insects in the Collection of the British Museum. Parts I, II. London, 1851, 1852. 12mo.

Synopsis of the Contents of the British Museum. Fortyninth edition. London, 1846. 12mo.

Idem. Fifty-seventh edition. London, 1851. 12mo. The British Museum Historical and Descriptive, with numerous Wood-Engravings. Edinburgh, 1850. 8vo.

## Hon. East India Company.

Horsfield (T.) & F. Moore. A Catalogue of the Birds in the Museum of the Hon. East India Company. Vols. I, II. London, 1854—1858. 8vo.

A Catalogue of the Lepidopterous Insects in the Museum of the Hon. East India Company. Vol. I. London, 1857. 8vo.

# Museum of Practical Geology and Geological Survey.

Second and Third Reports on the Coals suited to the Steam Navy. By Sir Henry De la Beche and Dr. Lyon Playfair. *London*, 1849, 1851. fol.

# Palæontographical Society.

List of the Council, Secretaries, and Members of the Palæontographical Society. 1848, 1851, 1853, 1856.

London, 4to.

- A Monograph of the Crag Mollusca, or Descriptions of Shells from the Middle and Upper Tertiaries of the East of England. By Searles V. Wood. Vol. I.—Univalves. Vol. II.—Bivalves. London, 1848, 1850-56. 4to.
- A Monograph of the Entomostraca of the Cretaceous Formation of England. By T. Rupert Jones. London, 1849. 4to.
- A Monograph of the Permian Fossils of England. By WILLIAM KING. London, 1850. 4to.

# Palæontographical Society.—Continued.

- A Monograph of the British Fossil Corals. By H. MILNE EDWARDS and JULES HAIME. Part I.—Introduction; Corals from the Tertiary and Cretaceous Formations. II.—Corals from the Oolitic Formations. III.—Corals from the Permian Formation and the Mountain Limestone. IV.—Corals from the Devonian Formation. V.—Corals from the Silurian Formation. London, 1850, 1854. 4to.
- Monograph on the Fossil Reptilia of the London Clay. Part I.—Chelonia. By Prof. Owen and Prof. Bell. Part II.—Crocodilia, Ophidia. By Prof. Owen. London, 1849, 1850. 4to.
- A Monograph of the Fossil Chelonian Reptiles of the Wealden Clays and Purbeck Limestones. By RICHARD OWEN. London, 1853. 4to.
- Monograph on the Fossil Reptilia of the Wealden Formations. By Professor Owen. Part II.—Dinosauria. III.—Megalosaurus Bucklandi. London, 1854, 1856. 4to.
- Monograph on the Fossil Reptilia of the Cretaceous Formations. By Prof. Owen. London, 1851. 4to.
- A Monograph of the Eocene Mollusca, or Descriptions of Shells from the Older Tertiaries of England. By Frederic E. Edwards. Part I.—Cephalopoda. II.— Pulmonata. III.—Prosobranchiata. London, 1849— 1856. 4to.
- A Monograph of the Mollusca from the Great Oolite, chiefly from Minchinhampton and the Coast of Yorkshire. By J. Morris and John Lycett. Part I.—Univalves. II, III.—Bivalves. London, 1850—1854. 4to.
- Monograph of the Echinodermata of the British Tertiaries. By Professor Edward Forbes. London, 1852. 4to.
- A Monograph of British Tertiary Brachiopoda. By Thomas Davidson. Part I. London, 1852. 4to.
- A Monograph of British Cretaceons Brachiopoda. By Thomas Davidson. Part II. London, 1852, 1854. 4to.

# Palæontographical Society.—Continued.

- A Monograph of British Oolitic and Liasic Brachiopoda. By Thomas Davidson. Part III. London, 1851, 1852. 4to.
- British Fossil Brachiopoda. By Thomas Davidson. Part IV. With a General Introduction. London, 1853. 4to.
- Description of the Fossil Remains of Mollusca found in the Chalk of England. By Daniel Sharpe. Parts I, II, III.—Cephalopoda. London, 1853—1856. 4to.
- A Monograph on the Fossil Lepadidæ, or Pedunculated Cirripedes of Great Britain. By CHARLES DARWIN. London, 1851. 4to.
- A Monograph on the Fossil Balanidæ and Verrucidæ of Great Britain. By Charles Darwin. London, 1854. 4to.
- A Monograph of the Tertiary Entomostraca of England. By Rupert Jones. London, 1856. 4to.
- A Monograph on the British Fossil Echinodermata of the Oolitic Formations. By Thomas Wright. Part I.—Cidaridæ, Hemicidaridæ, and Diademidæ. London, 1855. 4to.

# Philological Society.

Transactions of the Philological Society. 1856. London, Svo.

# Royal College of Surgeons of England.

Synopsis of the Arrangement of the Preparations in the Museum of the Royal College of Surgeons of England. *London*, 1850. 8vo. pp. 104.

# Royal Society.

Six Discourses delivered before the Royal Society at their Anniversary Meetings, on the award of the Royal and Copley Medals; preceded by an Address to the Society, on the Progress and Prospects of Science. By Sir Humphrey Davy. London, 1827. 4to.

Report on the adjudication of the Copley, Rumford, and Royal Medals; and appointment of the Bakerian,

# Royal Scciety .- Continued.

Croonian and Fairchild Lectures. Compiled from the original documents in the Archives of the Royal Society. By James Hudson. London, 1834. 4to.

# Royal Society of Literature.

Transactions of the Royal Society of Literature of the United Kingdom. Vols. I, 1, 2; II, 1, 2; III, 1. London, 1827—1837. 4to.

### Miscellanea.

- The Atlantis: a Register of Literature and Science. Conducted by Members of the Catholic University. Nos. II, III. London, 1858, 1859. 8vo.
- The British Cyclopædia of Natural History. Arranged and edited by Charles F. Partington. Vols. I—III. London, 1835—1837. 8vo.
- The British and Foreign Medico-Chirurgical Review; or Quarterly Journal of Practical Medicine and Surgery (Reprint). No. 10, 1850; No. 37, 1857. New York. Svo.
- The Ibis, a Magazine of General Ornithology. Edited by Philip Lutley Sclater, M. A. Vol. I, 1, 2, 3. London, 1858, 1859. 8vo.
- The London Encyclopædia. Vols. I—XXII. London, 1829. Svo.
- The Polytechnic Review and Magazine of Science, Literature, and the Fine Arts. New series. Vol. I, 1—5. London, 1844. Svo.
- The Publishers' Circular and General Record of British and Foreign Literature; containing a Complete Alphabetical List of all New Works published in Great Britain and every Work of interest published abroad. Vols. I—XI, XXI. London, 1837—1848, 1858. 8vo.
- The Year-Book of Facts in Science and Art: exhibiting the most important discoveries and improvements of the past Year; in Mechanics and the Useful Arts; Natural Philosophy; Electricity; Chemistry; Zoology and Bo-

### Miscellanea.—Continued.

tany; Geology and Mineralogy; Meteorology and Astronomy. By JOHN TIMES. London, 1849—1856, 1858. Svo.

### SALFORD.

# Salford Borough Royal Museum and Library.

Borough of Salford. Sixth Annual Report of the Museum and Library Committee to the Council. 1854. Salford. Svo. pp. 12.

### SOUTHAMPTON.

# Ordnance Trigonometrical Survey.

Ordnance Trigonometrical Survey of Great Britain and Ireland. Account of the Observations and Calculations of the principal Triangulation; and of the Figure, Dimensions, and Mean Specific Gravity of the Earth as derived therefrom. Drawn up by Captain Alexander Ross Clarke, under the direction of Lt. Colonel H. James. London, 1858. 4to. And 4to. vol. of Plates.

# ASIA.

### BOMBAY.

# Bombay Mechanics' Institution.

Berkley (J. J.). An Address delivered at the Annual Meeting of the Bombay Mechanics' Institution, on Saturday, April 11, 1857, by the President. *Bombay*, 1857. 8vo. pp. 28.

Paper on the Bhore Ghaut Railway Incline: read at the Bombay Mechanics' Institution, on Monday, December 21, 1857. *Bombay*, 1858. Svo. pp. 36.

DEMPSEY (G. D.). A Sketch for a Map of Knowledge: read at the Bombay Mechanies' Institution, on Monday, January 18, 1858. With a Map. *Bombay*, 1858. 8vo. pp. 16.

#### BOMBAY.

# Bombay Mechanics' Institution.—Continued.

Sinclair (R. S.). Lecture on the Laws of Motion: delivered at the Bombay Mechanics' Institution, on Thursday, January 21, 1858. Bombay, 1858.
Svo. pp. 42.
Giraud (H.). A Lecture on Combustion; and the Sun the source of all Terrestrial Force. Delivered to the Mechanics' Institution of Bombay on the 5th February, 1858. Bombay, 1858.
Svo. pp. 12.

#### CALCUTTA.

## Agricultural and Horticultural Society of India.

Transactions of the Agricultural and Horticultural Society of India. Vols. I—VIII. Calcutta, 1838—1841. 8vo.
Journal of the Agricultural and Horticultural Society of India. Vols. IX, X, 1, 1854—1857. Calcutta, 1857, 1858. 8vo.

### Geological Survey of India.

Memoirs of the Geological Survey of India. Vol. I, Part2. Calcutta, 1858. 8vo.

#### MADRAS.

# Hon. East India Company's Observatory.

Result of Astronomical Observations made at the Honorable the East India Company's Observatory at Madras. By T. G. Taylor. Vol. II. Madras, 1835. 4to.

### BRITISH AMERICA.

### CANADA EAST.

#### MONTREAL.

# Societe Historique de Montreal.

Mémoires et Documents relatifs à l'Histoire du Canada. Publiés par la Société Historique de Montréal, Montréal, 1859. 8vo. pp. 63.

## SPANISH AMERICA.

### CUBA.

#### HABANA.

#### La Colonizadora.

Estatutos de la Sociedad Anónima titulada: La Colonizadora. *Habana*, 1857. Svo. pp. 15.

# Sociedad del Credito Moviliario y Fomento Cubano.

Estatutos y Reglamento de la Sociedad General del Crédito Moviliario y Fomento Cubano. *Habana*, 1857. 8vo. pp. 24.

### Sociedad General del Credito Territorial Cubano.

Estatutos y Reglamento de la Sociedad General del Crédito Territorial Cubano. *Habana*, 1857. Svo. pp. 16.

### POLYNESIA.

### SAND WICH ISLANDS.

#### HONULULU.

# Royal Hawaiian Agricultural Society.

Transactions of the Royal Hawaiian Agricultural Society. Vol. I, 3, 1852. Honululu, 1852. 8vo.

# INDEX TO LEARNED SOCIETIES.

	PAGE
Academia Groningana (Groningen)	23
Academia Lugduno-Batava (Leiden)	25
Academia Real da Historia Portugueza (Lisboa)	-126
Academia Real das Sciencias (Lisboa)	127
Academia Rheno-Trajectina (Utrecht)	26
Académie de Bordeaux	214
Académie de Macon	215
Académie de Stanislas (Nancy)	216
Académie des Sciences, Arts et Belles-Lettres (Dijon)	96
Académie des Sciences, Belles-Lettres et Arts (Clermont-Ferrand)	96
Académie des Sciences, Belles-Lettres et Arts de Bordeaux	94
Académie des Sciences, Belles-Lettres et Arts de Lyon	98
Académie des Sciences, Belles-Lettres et Arts de Rouen	114
Académie des Sciences et Lettres (Montpellier)	101
Académie des Sciences, Inscriptions et Belles-Lettres (Toulouse)	115
Académie des Sciences, Lettres et Arts de Marseille	100
Académie du Gard (Nîmes)	-102
Académic Impériale de Metz	100
Académie Nationale Agricole, Manufacturière et Commerciale (Paris)	102
Académie Royale des Sciences, Arts et Belles-Lettres (Caen)	95
Académie Royale des Sciences, des Lettres et des Beaux-Arts (Bru-	
xelles)	- 89
Accademia d'Agricoltura, Commercio ed Arti di Verona	124
Accademia degli Aspiranti Naturalisti (Napoli)	121
Accademia del Cimento (Firenze)	118
Accademia della Scienze dell' Istituto di Bologna	117
Accademia Fisio-medico-statistica di Milano	, 219
Accademia Gioenia di Scienze Naturali (Catania)	118
Accademia Palermitana di Scienze e Lettere (Palermo)	122
Accademia Pontificia de' Nuovi Lincei (Roma)	123
Agricultural and Horticultural Society of India (Calcutta)	233
Allelodidactic Society (London)	140
Allgemeine Armen-Anstalt (Hamburg)	56
Allgemeine Schweizerische Gesellschaft für die gesammten Naturwis-	
senschaften (Switzerland)	85
Animals' Friend Society (London)	140

	PAGE
Archæological Institute of Great Britain and Ireland	128
Aslimolean Society (Oxford)	168
Asiatic Society of Bengal (Calcutta)	184
Asiatic Society of China (Hong Kong)	184
Asile des Aveugles de Lausanne	212
Astronomical Society of London	140
Ateneo di Brescia	118
Baltischer Verein für Förderung der Landwirthschaft (Greifswald)	58
Bannatyne Club (Edinburgh)	l, 222
Bataafsch Genootschap der Proefondervindelijke Wijsbegeerte te Rot-	
terdam	26
Bataafsch Maatschappij van Taal- en Dichtkunde (Amsterdam)	. 20
Bataafsche Maatschappij der Wetenschappen (Haarlem)	23
Bataviaasch Genootschap van Kunsten en Wetenschappen (Batavia)	170
Bath and West of England Agricultural Society (Bath)	128
Bergen's Museum (Bergen)	6
Berwickshire Naturalists' Club (Berwick-on-Tweed)	129
Bibliothèque Cantonale Vaudoise (Lausanne)	212
Bibliothèque Impériale (Paris)	216
Bishop's Observatory, Regent's Park, London	140
Blinden-Anstalt (Friedberg)	51
Board of Trade (London)	140
Böhmischer Gewerbverein (Prag)	208
Böhmisches Museum (Prag)	72
Bombay Geographical Society	170
Bombay Government	171
Bombay Mechanies' Institution	232
Botanical Society of Edinburgh	133
British and Foreign Aborigines' Protection Society (London)	141
British and Foreign School Society (London)	143
British Archeological Association (London)	140
British Association for the Advancement of Science	127
British Government (London)	142
British Museum (London)	, 223
	- 00
Cambrian Archeological Association (Wales)	169
Cambridge Observatory	129
Cambridge Philosophical Society	129
Cambridge University	130
Camden Society (London)	143
Canadian Institute (Toronto)	186
Cavendish Society (London)	147
Central-Direction für die Provinz Sachsen (Merseburg)	69
Cercle générale d'Horticulture (Paris)	102
Chambre de Commerce (Bordeaux)	214

•	PAGE
Chemical Society (London)	147
Civico Musco Ferdinando Massimiliano (Triest)	209
Collége Cantonal de Lausanne	213
Colonizadora, La (Habana)	234
Congrès Scientifique de France	92
Danske Landmands-Forsamling (Kjöbenhavn)	7
Département de l'Instruction Publique (Montreal)	185
Dépôt des Cartes et Plans de la Marine (Paris)	216
Deutsche Geologische Gesellschaft (Berlin)	33
Deutsche Gesellschaft für Hydrologie (Wetzlar)	80
Deutsche Gesellschaft für Psychiatrie und gerichtliche Psychologie	
(Bendorf).	32
Deutsche morgenländische Gesellschaft (Leipzig)	203
Deutsche Ornithologen-Gesellschaft (Stuttgart)	78
Doctoren-Collegium der medicinischen Facultät (Wien) 82,	210
Dublin University Philosophical Society	130
• •	
Ecole des Chartes (Paris)	102
Ecole des Mines (Paris)	103
Ecole Polytechnique (Paris)	216
Ecole Polytechnique Fédérale (Zürich)	213
Ecole Spéciale de Lausanne	213
Entomological Society (London)	148
Entomologischer Verein (Berlin)	197
Entomologischer Verein (Stettin)	208
Etat Major du Corps des Ingénieurs des Mines de Russie (St. Peters-	
burg)	19
Ethnological Society (London)	148
Evangelisches Gymnasium zu Resmark (Leutschau)	204
Ferdinandeum (Innsbruck)	202
Fürstlich Jablonowski'sche Gesellschaft (Leipzig)	62
( 1 0)	
Gartenbaugesellschaft "Flora" (Frankfurt-am-Main)	49
Gartenbau-Verein (Darmstadt)	199
Gartenbau-Verein für Neuvorpommern und Rügen (Greifswald)	54
Gelehrte Estnische Gesellschaft zu Dorpat	12
Genootschap ter Spreuke voerende: "Een onvermoeide arbeid komt	
alles te boven" (Amsterdam)	28
Geographische Anstalt (Gotha)	58
Geographische Gesellschaft (Berlin)	88
Geological and Polytechnic Society of the West Riding of Yorkshire	
(Leeds)	188
Geological Society (Dublin)	130
Geological Society (London)	149

	PAGE
Geological Survey of India (Calcutta)	233
Geologische Gesellschaft für Ungarn (Pesth)	207
Germanisches Museum (Nürnberg)	71
Geschichts- und Alterthumsforschende Gesellschaft des Osterlandes	
(Altenburg)	197
Gesellschaft für Beförderung der Naturwissenschaften (Freiburg)	50
Gesellschaft für Erdkunde (Berlin)	33
Gesellschaft für vaterländische Alterthümer (Basel)	86
Gesellschaft für vaterländische Alterthümer in Zürich	88
Gesellschaft naturforschender Freunde (Berlin)	34
Gesellschaft zur Beförderung der gesammten Naturwissenschaften	
(Marburg)	205
Gesellschaft zur Beförderung des Flachs- und Hanfbaues in Preussen	, 400
(Berlin)	34
Gesellschaft zur Beförderung des Guten und Gemeinnützigen (Basel).	212
Gewerbe-Verein für das Königreich Hannover	58
Gidrographitsheskiĭ Departament Morskago Ministerstva (St. Peters-	00
burg)	15
Göttingischer Verein Bergmännischer Freunde (Göttingen)	52
Grossherzogl. herzogl. sächs. Gesammt-Universität (Jena)	59
Grossherzogliche Hofbibliothek (Karlsruhe)	60
orossner zognene Troronomotnek (Maristane)	00
Hakluyt Society (London)	149
Handels- und Gewerbekammer für Kroatien (Agram)	196
Handels- und Gewerbekammer Oberösterreichs (Linz)	204
Heilanstalt Mariaberg (Tübingen)	210
Das heilgymnastische Institut (Stuttgart)	208
Highland and Agricultural Society of Scotland (Edinburgh)	133
Historic Society of Lancashire and Cheshire (Liverpool) 139,	
Historischer Verein für Innerösterreich (Grätz)	199
Historischer Verein für Steiermark (Grätz)	200
Historisch Genootschap (Utrecht)	26
Hollandsche Maatschappij der Wetenschappen (Haarlem)	23
Hon. East India Company (London)	228
Hon. East India Company's Observatory (Madras)	233
Horticultural Society (London)	149
Horneuttural Society (Bondon)	143
Imper. Akademija Nauk (St. Petersburg)	15
Imper, Kazanskij Universitet (Kazan)	13
Imper. Regia Accademia di Scienze, Lettere ed Arti di Padova	122
Imper. Regio Istituto Geologico (Bologna)	117
Imper. Regio Istituto Geologico (Bologna)	119
Imper. Regio Istituto Veneto di Scienze, Lettere ed Arti (Mano)	124
Imper. Russkoe Geographitsheskoe Obshtshestvo (St. Petersburg) 18,	
Imper. Russkoe Geographitsheskoe Obshtshestvo (St. Petersburg) 10,	18
Institut de France (Paris)	216

I	PAGE
Institut de France: Académie des Inscriptions et Belles-Lettres	
(Paris)	
Institut de France: Académie des Sciences (Paris) 103,	217
Institut de France: Académie des Sciences Morales et Politiques	
(Paris) 105,	217
Institut des Provinces de France	92
Institut Historique (Paris)	106
Institute of Actuaries of Great Britain and Ireland (London)	150
Institution des Sourds-Muets à Yverdon (Lausanne)	213
Institution Heuchoz à Château d'Ocx (Lausanne)	213
International Congress für Statistik (Wien)	210
Isis (Meissen)	69
Jamaica Society of Arts (Kingston)	187
Kais. Akademie der Wissenschaften (Wien)	80
Kais. Leopoldinisch-Carolinische Akademie der Naturforscher (Bres-	
lau)	41
Kais. Universitäts Sternwarte (Dorpat)	12
Kais. öffentliche Bibliothek (St. Petersburg)	193
Kais. Russ. Mineralogische Gesellschaft (St. Petersburg)	19
Kais. bayerische botanische Gesellschaft (Regensburg)	75
Kais, kön, Gartenbau Gesellschaft (Wien)	211
Kais. kön. Geographische Gesellschaft (Wien)	211
Kais. kön. Geologische Reichsanstalt (Wien) 82,	211
Kais. kön. Gymnasium (Agram)	196
Kais. kön. Gymnasium (Olmütz)	207
Kais, kön. Handels-Ministerium (Wien)	83
Kais. kön. Hof- und Staats-Druckerei (Wien)	82
Kais, kön, Katholisches Staats-Gymnasium (Hermannstadt)	202
Kais. kön. kärntnerische Landwirthschaft-Gesellschaft (Klagenfurt)	203
Kais, kön. Landwirthschaft Gesellschaft (Salzburg)	208
Kais. kön. Landwirthschafts-Gesellschaft (Wien)	211
Kais, kön. Mährisch-Schlesische Gesellschaft zur Beförderung des	
Ackerbaues, der Natur- und Landeskunde (Brünn)	198
Kais. kön. Marine-Sternwarte (Tricst)	209
Kais, kön, Obergymnasium (Melk)	205
Kais. kön. Ober-Gymnasium (Wien)	212
Kais, kön. Orientalische Akademie (Wien)	83
Kais, kön. Patriotisch-ökonomische Gesellschaft (Prag)	74
Kais. kön. Sternwarte (Wien)	84
Kilkenny and South-East of Ireland Archæological Society (Kilkenny)	138
Kiralyi Magyar Természettudományi Társulat (Pesth)	207
Kongel. Danske Selskab for Fædrelandets Historie og Sprog (Kjöben-	
havn)	7

	AGE
Kongel. Danske Videnskabernes Selskab (Kjöbenhavn)	8
Kongel. Nordiske Oldskrift-Selskab (Kjöbenhavn)	191
Kongel. Norske Frederiks Universitet (Christiania)	6
Kongel. Norske Videnskabernes Selskab (Trondhjem)	7
Kongl. Svenska Vetenskaps Akademien (Stockholm)	2
Kongl. Universitetet (Lund)	2
Kongl. Vetenskaps Societeten (Upsala)	6
Kongl. Vitterhets Historie och Antiquitets Akademien (Stockholm)	5
KöniglBayerische Akademie der Wissenschaften (München) 69,	205
KöniglBöhmische Gesellschaft der Wissenschaften (Prag)	73
Königl. Centralstelle für die Landwirthschaft (Stuttgart)	77
Königl. Centralstelle für Gewerbe und Handel (Stuttgart)	77
Königl. Blinden-Anstalt zu Dresden.	48
Königl. Gesellschaft der Wissenschaften (Göttingen)	52
Königl. Hof- und Staats-Bibliothek (München)	70
Königl. Landes-Œconomie-Collegium (Berlin)	34
Königl. Mineralogisches Museum (Dresden)	199
Königl. Polytechnisches Schule (Dresden)	47
Königl. Staatsarchiv (Stattgart)	209
Königl. Sternwarte (München)	206
Königl. Universitäts-Sternwarte (Königsberg)	62
Königl. Preussische Akademie der Wissenschaften zu Berlin 35,	197
Königl. Rheinische Friedrich-Wilhelms Universität (Bonn)	40
Königl. Sächsische Akademie für Forst- und Landwirthe (Tharand)	79
KöniglSächsische Bergakademie (Freiberg)	50
Königl. Sächsische Gesellschaft der Wissenschaften (Leipzig) 63,	203
Koninkl. Akademie van Wetenschappen (Amsterdam) 21,	193
Koninkl. Instituut van Ingenieurs (La Haye)	24
Koninkl. Nederlandsche Instituut (Amsterdam)	21
Koninkl. Nederlandsch Meteorologisch Instituut (Utrecht)	27
Koninkl. Zoologisch Genootschap "Natura Artis Magistra" (Amster-	
dam)	22
K. P. Staats- u. landwirthschaft!. Academie Eldena (Greifswald)	54
Kroatisch-Slavonische Landwirthschafts-Gesellschaft (Agram)	196
Kurländische Gesellschaft für Literatur und Kunst (Mitau)	13
Landwirthschaftlicher Generalverein des Herzogthums Holstein (Kiel)	60
Landwirthschaftlicher Verein (München)	70
Leicester Literary and Philosophical Society	139
Linnean Society (London)	150
Literary and Historical Society (Quebec)	186
Literary and Philosophical Society (Manchester)	167
Literary Society and Auxiliary of the Royal Asiatic Society (Madras)	185
Liverpool Royal Institution	139
London Electrical Society	150

I	PAGE
Maatschappij der Nederlandsche Letterkunde (Leiden)	195
Magnetische Observatorium (Kremsmünster)	62
A' Magyar Tudós Társaság (Buda)	44
Mecklinburgische naturforschende Gesellschaft (Rostock)	75
Microscopical Society (London)	150
Ministère de l'Instruction Publique (Paris)	106
Ministère de la Marine (Paris)	106
Mittelrheinischer Geologischer Verein (Darmstadt)	45
Montanischer Verein im Erzgebirge (Karlsbad)	203
Müuchener Verein für Naturkunde (München)	70
Museo Civico (Milano)	220
Museo dei Fratclli Villa (Milano)	220
Museum (Basel)	86
Muséum d'Histoire Naturelle (Paris)	106
Museum Francisco-Carolinum (Linz)	204
Museum of Practical Geology and Geological Survey (London) 151,	228
Natural History and Philosophical Society (Belfast)	129
Natural History Society (Montreal)	185
Natural History Society of Northumberland, Durham, and Newcastle-	100
upon-Tyne	167
Naturforschende Gesellschaft (Basel)	86
Naturforschende Gesellschaft (Bern)	87
Naturforschende Gesellschaft (Danzig)	45
Naturforschende Geschlschaft (Emden)	48
Naturforschende Gesellschaft (Görlitz)	52
Naturforschende Gesellschaft (Halle)	54
Naturforschende Geschlschaft (Zürich)	88
Naturforschende Gesellschaft des Osterlandes (Altenburg)	32
Naturforschender Verein (Riga)	15
Naturhistorische Gesellschaft (Nürnberg)	71
Naturhistorischer Verein (Augsburg)	197
Naturhistorischer Verein der preussischen Rheinlande und Westpha-	
lens (Bonn)	40
Naturhistorischer Verein für das Grossherzogthum Hessen (Darm-	
stadt)	46
Naturhistorischer Verein "Lotos" (Prag)	74
Naturhistorisches Landesmuseum von Kärnten (Klagenfurt) 59,	
Naturhistoriske Forening (Kjöbenhavn)	9
Naturwissenschaftliche Gesellschaft (Hamburg)	57
Naturwissenschaftlicher Verein in Halle	55
Naturwissenschaftlicher Verein (Hamburg)	57
Naturwissenschaftlicher Verein (Lüneburg)	
Naturwissenschaftlicher Verein des Harzes (Blankenberg)	39
Naturwissenschaftliches Institut der Universität (Rostock)	76
Natuurkundige Vereeniging in Nederlandsch Indië (Batavia)	170
16	

	PAGE
Nederlandsche Entomologische Vereeniging (Leiden)	195
New Brunswick Society for the Encouragement of Agriculture, Home	
Manufactures, and Commerce (Fredericton)	187
Norddeutscher Apotheker-Verein (Germany)	29
Nordisk Universitets Tidskrift (Scandinavia)	1
Numismatic Society (London)	151
itumismatic pociety (London)	101
Oberhessische Gesellschaft für Natur- und Heilkunde (Giessen)	51
Oberlausitzische Gesellschaft der Wissenschaften (Görlitz)	52
Observatoire (Genève)	87
Observatoire Royal (Bruxelles)	90
Observatoire Magnétique et Météorologique (Helsingfors)	13
	20
Observatoire Physique Central de Russie (St. Petersburg)	$\frac{20}{126}$
Observatorio de Marina de San Fernando	
Observatory of St. John's College (Cambridge)	130
Obshtshestvo Seljskago Khozjaistva Juzhnof Rossii (Odessa)	14
Odesskoe Obshtshestvo Istorii i Drevnoster (Odessa)	14
Effentliche sechsklassige Ober-Realschule (Reichenberg)	208
Openbare Bibliotheek (Arnhem)	194
Ordnance Trigonometrical Survey (Southampton)	232
Osservatorio (Milano)	120
Osservatorio Astronomico del Collegio Romano (Roma)	122
Overijsselsche Vereeniging tot Ontwikkeling van Provinciale Welvaart	
(Zwolle)	, 196
Palæontographical Society (London)	228
Pesther Obergymnasium (Pesth)	208
Philological Society (London)	ı, 230 138
	_
Photographic Society (London)	151
Physikalisch-medicinische Gesellschaft (Würzburg)	85
Physikalische Gesellschaft (Berlin)	36
Physikalischer Verein zu Frankfurt.	49
Physiographiske Forening (Christiania)	7
Pollichia: Naturwissenschaftlicher Verein der bayerischen Pfalz	
(Deidesheim)	47
Polytechnische Gesellschaft (Berlin)	36
Polytechnische Gesellschaft (Leipzig)	64
Polytechnischer Verein (München) 70	
Polytechnischer Verein (Würzburg)	85
Pomologische Gesellschaft (Altenburg)	32
Praktische Gartenbau Gesellschaft in Bayern (Passau)	207
Provinciaal Genootschap van Kunsten en Wetenschappen in Noord-	
brabant (Hertogenbosch)	194
Provinciaal Utrechtsch Genootschap van Kunsten en Wetenschappen	
(Utrecht)	27

	PAGE
Radcliffe Observatory (Oxford)	168
Ray Society (London),	152
Real Academia de Buenas-Letras de la Ciudad de Barcelona	125
Real Academia de la Historia (Madrid)	125
Real Academia di Ciencias de Madrid	125
Real Acuerdo de la Audiencia Pretorial de la Habana	187
Real Sociedad Economica de Amigos del Pais (Habana)	188
Real Sociedad Patriotica de la Habana	188
Reale Accademia Lucchese di Scienze, Lettere ed Arti (Lucca)	116
Reale Accademia delle Scienze (Torino)	123
Reale Accademia delle Scienze e Belle Lettere (Napoli)	121
Reale Orto Botanico di Napoli	221
Reale Osservatorio di Napoli	122
Redhill Observatory (London)	153
Regale Accademia Ercolanese di Archeologia (Napoli)	221
Riunione degli Scienziati Italiani	116
Royal Agricultural Society (Prince Edward Island)	187
Royal Agricultural Society of England (London)	153
Royal Asiatic Society (Bombay)	184
Royal Asiatic Society (London)	154
Royal Astronomical Society (London)	154
Royal College of Surgeons of England (London)	230
Royal Cornwall Polytechnic Society (Falmouth)	136
Royal Dublin Society	130
Royal Geographical Society (London)	154
Royal Geological Society of Cornwall (Penzance)	168
Royal Hawaiian Agricultural Society (Honolulu)	), 234
Royal Institution of Great Britain (London)	155
Royal Irish Academy (Dublin)	130
Royal Observatory (Edinburgh)	133
Royal Observatory (Greenwich) 136	, 222
Royal Scottish Society of Arts (Edinburgh)	134
Royal Society of Edinburgh	134
Royal Society (London)	, 230
Royal Society of Literature (London)	231
Salford Borough Royal Museum and Library (Salford)	232
Schafzüchter-Verein für Böhmen (Prag)	75
Schlesische Gesellschaft für vaterländische Kultur (Breslau)	44
Schleswig-Holstein-Lauenburgische Gesellschaft für die Sammlung	
und Erhaltung vaterländischer Alterthümer (Kiel)	61
Schleswig-Holstein-Lauenburgische Gesellschaft für vaterländische	
Geschichte (Kiel)	60
Schweizerisches Polytechnicum (Zürich)	213
Scottish Meteorological Society (Edinburgh)	134
Scuola Anatomica di Bologna	219

	PAGE
Selskabet for en forbedret Retskrivnings Udbredelse (Kjöbenhavn)	11
Siebenbürgischer Verein für Naturwissenschaften (Hermannstadt)	202
Skandinaviske Litteratur Selskab (Kjöbenhavn)	11
Skandinaviske Naturforskeres Forsamling (Scandinavia)	1
Sneckenbergische naturforschende Gesellschaft (Frankfurt-am-Main)	49
Sociedad del Crédito Moviliario y Fomento Cubano (Habana)	234
Sociedad General del Crédito Territorial Cubano (Habana)	234
Sociedad Mexicana de Geografia y Estadistica (Mexico)	189
Società d'Incoraggiamento Arti e Mestieri (Milano)	221
Società d'Incoraggiamento di Scienze, Lettere ed Arti (Milano)	221
Società Italiana delle Scienze (Modena)	121
Societas Hagana pro vindicanda Religione Christiana (La Haye)	25
Societas Scientiarum Fennica (Helsingfors)	193
Société Académique (Cherbourg)	96
Société Académique (Saint-Quentin)	114
Société Archéologique (Beziers)	93
Société Archéologique (Montpellier)	101
Société Archéologique de l'Orléanais (Orléans)	216
Société d'Agriculture, Arts et Commerce du Département de la Cha-	
rente (Angoulême)	93
Société d'Agriculture du Bas-Canada (Montreal)	185
Société d'Agriculture et de Commerce de Caen	95
Société d'Agriculture, Histoire Naturelle et Arts Utiles de Lyon	98
Société d'Agriculture, Industrie, Sciences et Arts du Département	
de la Lozère (Mende)	100
Société d'Agriculture, Sciences et Arts de la Sarthe (Le Mans)	99
Société d'Arcueil	93
Société d'Encouragement pour l'Industrie Nationale (Paris)	107
Société d'Histoire Naturelle (Paris)	108
Société d'Histoire Naturelle du Département de la Moselle (Metz)	101
Société d'Histoire Naturelle de l'Isle Maurice (Mauritius)	169
Société d'Horticulture de la Seine (Paris)	108
Société de Biologie (Paris)	107
Société de Géographie (Paris)	107
Société de Médecine (Caen)	96
Société de Pharmacie (Anvers)	89
Société de Physique et d'Histoire Naturelle de Genève	87
Société de Secours des Amis des Sciences (Paris)	217
Société des Antiquaires de France (Paris)	106
Société des Antiquaires de Normandic (Caen)	95
Société des Antiquaires de Picardie (Amiens)	92
Société des Gens de Lettres Belges (Bruxelles)	90
Société des Sciences, Agriculture et Arts de Strasbourg	114
Société des Sciences, Belles-Lettres et Arts d'Orléans	102
Société des Sciences, de l'Agriculture et des Arts de Lille	97
Société des Sciences, des Arts et des Lettres du Hainaut (Mons)	-92

	PAGE
Société des Sciences Naturelles (Cherbourg)	96
Société des Sciences Naturelles du Grand-Duché de Luxembourg	68
Société des Sciences Naturelles (Neuchâtel)	87
Société des Sciences Physiques et Naturelles de Bordeaux	94
Société du Muséum d'Histoire Naturelle (Strasbourg)	115
Société Egyptienne (Alexandria)	169
Société Entomologique des Pays-Bas (La Haye)	24
Société Ethnologique (Paris)	107
Société Française pour la Conservation des Monuments Historiques	
(Paris)	107
Société Géologique de France (Paris)	, 218
Société Historique de Montréal	233
Société Impériale et Centrale d'Agriculture (Paris)	108
Société Impériale et Centrale d'Horticulture (Paris) 109	, 218
Société Impériale de Médecine, Chirurgie et Pharmacie (Toulouse)	219
Société Impériale des Naturalistes de Moscou	13
Société Impériale Zoologique d'Acclimatation (Paris)	109
Société Industrielle d'Horlogérie (Lausanne)	213
Société Industrielle de Mulhouse	215
Société libre d'Agriculture, Sciences, Arts et Belles-Lettres de l'Eure	
(Evreux)	97
Société Linnéenne de Bordeaux	94
Société Linnéenne de Lyon	99
Société Linnéenne de Normandie (Caen)	, 215
Société Liunéenne de Paris	218
Société Médicale Allemande de Paris	218
Société Météorologique de France (Paris)	109
Société Orientale de France (Paris)	218
Société Philomathique de Bordeaux	215
Société Philomatique de Paris	110
Société Royale Linnéenne de Bruxelles	214
Société Royale des Sciences de Liège	91
Société Vaudoise des Sciences Naturelles (Lausanne)	87
Society for the Encouragement of Arts, Manufactures, and Commerce	
(London)	157
Society for the Illustration and Encouragement of Practical Science	
(London)	158
Society of Antiquarians of London	157
Society of Antiquarians of Scotland (Edinburgh)	134
Stad Bibliotheck (Amsterdam)	193
Statistical Society (London)	158
Statisches Central-Archiv (Leipzig)	203
Stiermarkischer Industrie- und Gewerbe-Verein (Grätz)	200
Steiermarkisch-ständisches Joanneum (Grätz)	200
Stenographischer Verein (Berlin)	87
Sternwarte (Breslau)	43

# INDEX TO

	PAGE
Sternwarte (Cracau)	45
Sternwarte (Hamburg)	57
Sternwarte (Mannheim)	68
Sternwarte des Königl. Lyzeums in Speyer	76
Svenska Akademier (Stockholm)	5
Thüringer Gartenbau-Vereiu zu Gotha	53
Thüringisch-sächsischer Verein (Halle)	55
Ulster Chemico-Agricultural Society (Belfast)	129
Universidad de Chile (Santiago)	189
Universität zu Kiel	60
Universitäts-Bibliothek (Erlangeu)	49
Universitäts-Bibliothek (Leipzig)	64
Universitäts-Bibliothek (Tübingen)	79
Université Catholique (Louvain)	91
Université de Gand	91
University College (Toronto)	186
University Observatory (Durham)	131
Universytet Krakowski (Cracau)	199
Vereeniging voor de Flora van Nederland (Leiden)	25
Vereeniging voor Volksvlijt (Amsterdam)	194
Verein der Freunde der Naturgeschichte in Mecklenburg (Neubran-	
deburg)	71
Verein deutscher Aerzte in Paris	110
Verein für Deutsche Statistik (Berlin)	37
Verein für Eisenbahnkunde (Berlin)	197
Verein für Erdkunde und verwandte Wissenschaften (Darmstadt)	46
Verein für Geographie und Statistik (Frankfurt-am-Main)	49
Verein für Hühnerzucht (Dresden)	199
Verein für Landeskultur und Landeskunde im Herzogthume Buko-	
wina (Czernowitz)	199
Verein für mecklenburgische Geschichte und Alterthumskunde	
(Schwerin)	76
Verein für Naturkunde (Mannheim)	68
Verein für Naturkunde (Presburg)	208
Verein für Pomologie und Gartenbau (Meiningen)	69
Verein für Siebenbürgische Landeskunde (Hermaunstadt)	58
Verein für Thüringische Geschichte und Alterthumskunde (Jena)	59
Verein für vaterländische Naturkunde (Stuttgart)	77
Verein Nassau'scher Aerzte (Weilburg)	210
Verein Süddeutscher Forstwirthe	30
Verein von Alterthumsfreunden im Rheinlande (Bonn)	40
Verein zur Beförderung des Gartenbaues in den königlich preussichen	
Staaten (Berlin)	37

റ	1	7
_	士	á

	PAGE
Verein zur Beförderung des Gewerbfleisses in Preussen (Berlin)	38
Verein zur Beförderung und Unterstützung der Industrie und der	
Gewerbe in Innerösterreich (Grätz)	200
Verein zur Fürsorge für entlassene Strafgefangene (Stuttgart)	209
Versammlung deutseher Land- und Forstwirthe	30
Versammlung deutseher Naturforscher und Aerzte	31
Versammlung Schweizerischer Naturforscher	212
Veterinair-Selskab (Kjöbenhavn)	11
Werner-Verein zur geolog. Durchforschung von Mühren und Schlesien (Brünn)	198
Würtembergischer Alterthums-Verein (Stuttgart)	77
Würtembergischer ärztlicher Verein (Stuttgart)	78
Yorkshire Philosophical Society (York)	169
Zeeuwsch Genootschap der Wetenschappen (Middelburg)	25
Zoological Society (London)	159
Zoologisch-botanischer Verein (Wien)	84
Zoologisch-mineralogischer Verein (Regensburg)	75

Total of Institutions and Societies, publications of which are in the Library of the Smithsonian Institution—501.



# INDEX TO MISCELLANEOUS PUBLICATIONS.

	PAGE
Acta Eruditorum (Leipzig)	65
	65
Allgemeine deutsche Bibliothek (Berlin und Stettin)	198
Allgemeine deutsche Naturhistorische Zeitung (Hamburg)	57
Allgemeine deutsche Real-Encyklopädie für die gebildeten Stände	0=
(Leipzig)	67
Allgemeine Encyklopädie der Physik (Leipzig)	65
Allgemeine Encyklopädie der Wissenschaften und Künste (llamburg	
und Leipzig)	65
Allgemeine Literatur-Zeitung (Halle und Leipzig)	56
Allgemeine Monatschrift für Literatur (Halle)	55
Annales de Chimie (Paris)	110
Annales de Chimie et de Physique (Paris)	110
Annales de Littérature Médicale étrangère (Gand)	91
Annalen der Physik (Halle und Leipzig)	66
Annalen der Physik und Chemie (Leipzig)	66
Annales des Sciences Naturelles (Paris)	, 218
Annals and Magazine of Natural History (London)	163
Annals of Natural History (London)	159
Annals of Philosophy (London)	159
Annals of Ulster (Belfast)	129
Année Scientifique et Industrielle (Paris)	112
Annuaire du Département de la Manche (Saint-Lô)	114
Annuaire des Deux Mondes (Paris)	110
Annuaire de Médecine et de Chirurgie Pratiques (Paris)	218
Annuaire Météorologique de la France (Paris)	110
Anti-Slavery Monthly Reporter (London)	159
Anzeiger für Bibliographie und Bibliothekwissenschaft (Dresden und	
Leipzig)	66
Archeologist and Journal of Antiquarian Science (London)	159
Architectural Magazine (London)	159
Archiv der Pharmacie (Haunover)	58
Archiv für Anatomie und Physiologie (Leipzig)	66
Archiv für Anatomie, Physiologie, und wissenschaftliche Medicin	
(Parlin)	38

	PAGE
Archiv für die gesammte Naturlehre (Nürnberg)	72
Archiv für den thierischen Magnetismus (Altenburg und Leipzig)	66
Archiv für die Physiologie (Halle)	56
Archiv für Landeskunde in den Grossherzogthümern Mecklenberg und	
Revue der Landwirthschaft (Schwerin)	76
Archiv für Mathematik und Physik (Greifswald)	54
Archiv für Mineralogie, Geognosie, Bergbau und Hüttenkunde (Berlin)	38
Archiv für Naturgeschichte (Berlin)	38
Archiv für pathologische Anatomie und Physiologie und für klinische	
Medicin (Berlin)	38
Archiv für wissenschaftliche Kunde von Russland (Berlin)	39
Archiv skaudinavischer Beiträge zur Naturgeschichte (Greifswald)	5
Archives de la Flore de France et d'Allemagne (Wissembourg)	118
Archives générales de Médecine (Paris)	11
Archives de Physiologie, de Thérapeutique et d'Hygiène (Paris)	11
Art-Journal (London)	16
Artizan (London)	16
Asiatic and Colonial Quarterly Journal (London)	16
Astronomische Nachrichten (Altona)	6
Athenæum (London)	16
Atlantis (London)	23
Banker's Magazine (London)	1 8 6 13 5 21 1 18 23 23 16
fiques (Paris)	11 11
Danoun des poiences travatenes et de deologie (1 alls)	
Canadian, British American, and West Indian Magazine (London)	16
Cartera Cubana (Habana)	18
Catalogue Annuel de la Librairie Française (Paris)	21

# MISCELLANEOUS PUBLICATIONS.

	PAGE
Chambers's Journal of Popular Literature, Science, and Arts (Edinburgh)	135
Chemical Gazette (London)	160
China Mail (Hong Kong)	184
Christian Observer (London)	160
Christian Reformer (London)	160
Civil Engineer and Architect's Journal (London)	160
Colburn's United Service Magazine and Naval and Military Journal	
(London)	160
(Milano)	121
Colonial Magazine and Foreign Miscellany (London)	160
Conversations-Lexikon der neuesten Zeit und Literatur (Leipzig) Critical Review or Annals of Literature (London)	67 160
Deutsches Archiv für die Physiologie (Halle)	56
Dictionnaire Classique d'Histoire Naturelle (Paris)	112
Dictionnaire raisonné universel d'Histoire Naturelle (Paris)	111
Dictionnaire des Sciences et des Arts (Paris)	218
Dictionnaire des Sciences Médicales (Bruxelles)	214
Dictionnaire des Sciences Naturelles (Paris)	111
Dublin Review (London)	161
Edinburgh Journal of Natural and Geographical Science	135
Edinburgh Journal of Science	135
Edinburgh New Philosophical Journal	135
Edinburgh Philosophical Journal	134
Edinburgh Review or Critical JournalEldenaer Archiv für landwirthschaftliche Erfahrungen und Versuche	135
(Berlin)	39
Encyclopædia Britannica (London)	161
Encyclopædia Metropolitana (London) Encyclopädie der gesammten theoretischen Naturwissenschaften in	161
ihrer Anwendung auf die Landwirthschaft (Braunschweig)	41
Encyclopédie Méthodique (Paris)	218
English Cyclopedia (London)	161
European Magazine (London)	161
Farmers' Magazine (London)	161
Foreign Quarterly Review (London)	161
Foreign Review and Continental Miscellany (London)	161
Frazer's Magazine for Town and Country (London)	161
Gentleman's Magazine (London)	161

	FAGE
Hamburg und Altona (Hamburg)	58
Hamburgisches Magazin (Hamburg)	57
Hedwigia (Dresden)	48
Heidelberger Jahrbücher der Literatur (Heidelberg)	58
Herculanensium Voluminum quæ supersunt (Napoli)	221
Household Words (London)	161
210dSchold Words (Bohdoh)	101
Ibis (London)	231
Iduna, en Skrift för den Nordiska Fornaalderns Aalskare (Stockholm)	
· · · · · · · · · · · · · · · · · · ·	6
Illustrated London News.	162
Illustrirte Zeitung (Leipzig)	67
Illustrirter Kalender (Leipzig)	204
Institut, Journal universel des Sciences, &c. (Paris)	112
Isis oder Encyclopädische Zeitung von Oken (Jena, Zurich, and Leip-	
zig)	59
Jahrbuch der Chemie und Physik (Halle)	56
Jahresbericht über die Fortschritte der reinen, pharmaceutischen und	
technischen Chemie, Physik, Mineralogie und Geologie (Giessen)	51
Journal d'Agriculture Pratique (Paris)	112
Journal des Savans (Paris)	112
Journal für Ornithologie (Cassel).	45
Journal für praktische Chemie (Leipzig)	67
Journal of Botany (London)	162
Journal of Education (Montreal).	186
Journal of Education (Toronto)	186
Journal of Natural Philosophy, Chemistry, and the Arts (London)	162
Journal of Psychological Medicine and Mental Pathology (London).	162
Journal zur Kunstgeschichte und zur allgemeinen Litteratur (Nürn-	
berg)	72
${\it K\"{o}nigsberger\ naturwissenschaftliche\ Unterhaltungen\ (K\"{o}nigsberg})}$	62
Labourers' Friend Magazine (London)	162
Lancet (London)	162
Landwirthschaftliche Zeitung für Nord- und Mittel-Deutschland (Ber-	
lin)	39
Linnæa (Halle)	55
London and Edinburgh Philosophical Magazine and Journal of Science	
(London)	162
London, Edinburgh, and Dublin Philosophical Magazine and Journal	
of Science (London)	162
London Encyclopædia	231
London Geological Journal and Record of Discoveries in British and	
Foreign Paleontology (London)	163

	PAGE
London Journal of Arts and Sciences (London)	163
London Journal of Arts and Sciences, and Repertory of Patent In-	
ventions (London)	163
London Polytechnie Magazine and Journal of Science, Literature, and	
the Fine Arts (London)	163
Magazin für die Literatur des Auslandes (Berlin)	39
Magazin für Insektenkunde (Braunschweig)	41
Magazin de Zoologie (Paris)	113
Magazin de Zoologie, d'Anatomie comparée et de Paléontologie (Paris)	113
Magazine of Natural History (London)	163
Magazine of Natural History and Journal of Zoology, Botany, Mine-	100
ralogy, and Geology (London)	163
Magazine of Zoology and Botany (Edinburgh)	135
Magazine of Zoology and Botany (London)	163
Malakozoologische Blätter (Cassel)	45
Mechanics' Magazine (London)	164
Medicinisches Schriftsteller-Lexicon (Copenhagen)	12
Medico-Chirurgical Review and Periscope of Practical Medicine (Lon-	
don)	164
Milano e Lombardi nel 1818 (Milano)	121
Mirror of Literature, Amusement, and Instruction (London)	164
Miscellania Physico-Medico-Mathematica, etc (Erffurt)	48
Monitor de las Escuelas Primarias (Santiago de Chile)	189
Monthly Magazine (London)	164
Monthly Review (London)	164
Morskoĭ Sbornik (St. Petersburg)	20
Natural History Review (London)	164
Naturforscher (Halle)	55
Naturhistorisk Tidsskrift (Kjöbenhavn) 12,	
Naturwissenschaftliche Abhandlungen (Wien)	84
Nautical Magazine and Naval Chronicle (London)	164
Neue Encyklopädie der Wissenschaften und Künste für die Deutsche	101
Nation (Stuttgart),	78
,	10
Neue gesellschaftliche Erzählungen für die Liebhaber der Naturlehre,	
der Haushaltungswissensehaft, der Arztneykunst und der Sitten	0=
(Leipzig)	67
Neue illustrirte Zeitschrift (Stuttgart)	78
Neue nordische Beyträge zur physikalischen und geographischen Erd-	
und Völkerbesehreibung, Naturgeschichte und Œkonomie (St. Pe-	
tersburg und Leipzig)	20
Neue Notizen aus dem Gebiete der Natur- und Heilkunde (Weimar)	79
Nene Physicalische Belustigungen (Prag)	75
Neues Hamburgisches Magazin (Hamburg und Leipzig)	57

	PAGE
Neues Journal für Chemie und Physik (Nürnberg)	72
Nordiske Kirke-Tidende (Kjöbenhavn)	11
North British Review (Edinburgh)	136
Notes and Queries (London)	165
Notizen aus dem Gebiete der Natur- und Heilkunde (Erffurt und	79
Weimar)	
Nouveau Dictionnaire d'Histoire Naturelle (Paris)	112
Nova Acta Eruditorum (Leipzig)	65
Nuovo Ricoglitore, ossia Archivj di Geografia, di Viaggi, etc. (Milano) Nye Samling af Danske, Norske og Islandske Jubel Lærere (Kjöben-	120
havn)	11
Patent Journal and Inventors' Magazine (London)	165
Penny Cyclopædia (London).	165
Penny Magazine (London)	165
Perseus, Journal for den Spekulative Idee (Kjöbenhavn)	12
Philosophical Magazine (London)	165
Physikalische Belustigungen (Berlin)	39
Fine Arts (London)	231
Polytechuisches Journal (Stuttgart und Augsburg)	78
Polytechnisches Notizblatt für Gewerbtreibende, Fabrikanten und Künstler (Frankfurt-am-Main)	50
Preetzer Wochenblatt und Handels Anzeiger für den Bürger und	
Landmann (Preetz)	75
Publishers' Circular (London)	231
Punch (London)	165
Quarterly Journal of Education (London)	165
Quarterly Journal of Pure and Applied Mathematics (London)	165
Quarterly Review (London)	165
Racoglitore, ossia Archivj di Viaggi, di Filosofia, etc. etc. (Milano)	120
Register of Arts and Journal of Patent Inventions (Loudon)	165
Register of the Arts and Sciences (London)	165
Règlement pour les Ecoles Publiques Primaires du Canton de Vaud (Lausanne)	213
Rendiconto della Beneficenza dello Spedale Maggiore (Milano)	120
Repertorium Italicum, complectens Zoologiam, Mineralogiam, Geolo-	117
giam et Palæontologiam (Bologna)	39
Repertorium der Physik (Berlin)	165
Repertory of Arts, Manufactures, and Agriculture (London)	
Repertory of Patent Inventions (London)	166
Reports of the British and Foreign Bible Society (London)	166
Retrospective Review (London)	166

MISCELLANEOUS PUBLICATIONS.	255
	PAGE
Revue des Deux Mondes (Paris)	113
Revue et Magazin de Zoologie pure et appliquée (Paris)	113
Revue Scientifique et Industrielle (Paris)	113
Revue Zoologique (Paris)	113
Rhea, Zeitschrift für die gesammte Ornithologie (Leipzig)	67
Rit thess Islenzka Lærdóms-lista Félags (Kjöbenhavn)	11
Robert Owen's Journal (London)	166
Robert Owen's Millennial Gazette (London)	166
Schweizerische Polytechnische Zeitschrift (Winterthür)	214
Scientific Memoirs (London)	166
Serapeum, Zeitschrift für Bibliothekwissenschaft (Leipzig)	67
Sharpe's London Magazine (London)	166
Simmond's Colonial Magazine and Foreign Miscellany (London)	166
Skírnir, ný tídhindi hins Islenzka Bókmentafèlags (Kjöbenhavn)	
	11
Specchio delle Scienze, o Giornale Enciclopedico di Sicilia (Palermo)	122
Spectator (London)	166
Spettatore (Milano)	120
Supplément à la Bibliothèque Universelle de Genève (Genève et Paris)	87
Tablettes Européennes (Paris)	113
Tagsberichte über die Fortschritte der Natur- und Heilkunde (Weimar)	79
Technologische Eucyklopädie oder alphabetisches Handbuch der Tech-	
nologie, der technischen Chemie und des Maschinenwesens (Stutt-	78
gart)	78
Tidsskrift for Landækonomie (Kjöbenhavn)	11
Tijdschrift voor Natuurlijke Geschiedenis en Physiologie (Amsterdam)	23
Tijaseniin voor nataariijas Geseniedenis en rajstotogie (nasteraan)	20
Uitgezogte Verhandelingen uit de Nieuwste Werken van de Societeiten	
der Wetenschappen in Europa en van andere geleerde Mannen	
(Amsterdam)	23
Ulster Journal of Archæology (Belfast)	129
Universal-Lexicon der Gegenwart und Vergangenheit (Altenburg)	32
Unterhaltungen für Dilettanten und Freunde der Astronomie, Geo-	* 0
graphie und Metcorologie (Leipzig und Halle)	56
Uranus, oder tägliche Uebersicht aller Himmelserscheinungen (Glogau)	51
Vivarium Naturæ, or the Naturalist's Miscellany (London)	166
West Indian Reporter (London)	166
Westminster and Foreign Quarterly Review (London)	167
Westminster Review (London)	167
Wiener entomologische Monatschrift	84
Wochenschrift für Gärtnerei und Pflanzenkunde (Berlin)	198
Wöchentliche Unterhaltungen für Dilettanten und Freunde der As-	
tronomie, etc	67

# 256

# INDEX TO MISCELLANEOUS PUBLICATIONS.

	PAGE
Year-Book of Facts in Science and Art (London)	231
Zeitschrift für die Entomologie (Leipzig)	68
Zeitschrift für wissenchaftliche Zoologie (Leipzig)	67
Zeitung für Zoologie, Zootomie und Palæontologie (Leipzig)	
Zoological Journal (London)	167
Zoological Miscellany (London)	167
Zoologist (London)	

Total of Miscellaneous Publications-254.

# INDEX TO NAMES OF PLACES.

1	PAGE	PAGE
Agram	196	Copenhagen. See Kjöbenhavn.
Alexandria	169	Cracau 45, 198
Altenburg 32,	197	Czernowitz 199
Amiens	92	
Amsterdam 20,	193	Danzig 45
Angoulême	93	Darmstadt 45, 199
Anvers	89	Deidesheim 47
Areueil	93	Dijon 96
Arnhem	194	Dorpat 12
Athens	169	Dresden 47, 199
Augsburg	197	Drontheim. See Trondhjem.
0 0		Dublin 130
Barcelona	125	Durham
Basel 86,	212	
Batavia	170	Edinburgh 131, 222
Bath	128	Emden 48
Belfast	129	Erfurt 48
Bendorf	32	Erlangen 49
Bergen	6	Evreux 97
Berlin 33,	197	
Bern	87	Falmouth
Berwick-on-Tweed	129	Firenze 118
Beziers	93	Florence. See Firenze.
Blankenburg	39	Frankfurt-am-Main 49
Bologna 117,		Fredericton 187
Bombay 170,		Freiberg
Bonn	40	Freiburg 50
Bordeaux 94,		Friedberg 51
Braunschweig	41	
Breseia	118	Gand
Breslau	41	Genève 87
Brünn	198	Ghent. See Gand.
Bruxelles 89,		Giessen
Buda	44	Glogau
		GOTTILE
Caen		GOLLIGIA
Calcutta 184,		Göttingen 52
Cambridge	129	Grätz
Carlsbad. See Karlsbad.	-	Gravenhage ('S). See Haye (La).
Carlsruhe. See Karlsruhe.		Greenwich 136, 222
Cassel	45	Greifswald         53           Gröningen         23
Catania	118	Gröningen 23
Cherbourg	96	Haarlen 23
Christiania	6	
Clermont-Ferrand	96	Habana
17		

# 1NDEX TO

PAG	E	1	AGE
Hague (The). See Haye (La).	Ì	Melk	205
Halle 5	54	Mende	100
	6	Merseburg	69
	58	Metz	100
Haye (La)	24	Mexico	189
	58		28
	1	Mildelburg	
Helsingfors		Milano 119,	
Hermannstadt 58, 20		Mitau	18
Hertogenbosch		Modena	121
Hong Kong 18		Mons	92
Honolulu 190, 23	34	Montpellier	101
	- 1	Montreal 185,	233
Innsbruck 59, 20	$02 \mid$	Moscow. See Moskva.	
	- 1	Moskva	- 18
Jena 5	59	Mulhouse	218
		München 69,	20
Karlsbad 20	)3 L		
	30	Nancy	216
	3	Naples. See Napoli.	-1
	30		001
		Napoli 121,	
Kilkenny 13		Neubrandeburg	7]
Kingston		Neuchâtel	87
Kjöbenhavn 7, 19		Newcastle-upon-Tyne	167
Klagenfurt 20		Nîmes	102
Königsberg 6	$32 \parallel$	Nürnberg	71
Kremsmünster 6	32 +	-	
	1	Odessa	14
Lausanne 87, 21	2	Olmütz	207
Leeds		Orléans 102,	216
Leicester	39	Oxford	168
Leipzig	- 1	OZIOI di	100
Leutschau 20		Padova	122
Leyden 25, 19		Padua. See Padova.	1 44
			122
	01	Palermo	
	7	Paris 102,	216
Linz 20		Passau	207
Lisboa 12		Penzance	168
Liverpool 139, 22		Pesth	207
London	23	Prag 72,	208
Louvain 9	11	Preetz	75
Lucca	9	Presburg	208
Lund	2	Prince Edward Island	187
Lüneburg 68, 20	)5		
	8	Quebec	186
	8	Quebeo	100
LJ 04	, o	Raganshurg	78
Macon	=	Regensburg	208
		Reichenberg	
Madras 185, 23		Riga	15
Madrid 12		Roma	122
Manchester 16	[	Rostock	75
Mannheim 6	8	Rotterdam	$2\epsilon$
Mans (Le) 9	99	Rouen	114
Marburg 68, 20	)5		
Markree 16		Saint-Lô	114
Marseille 10	- 1	St. Petersburg 15,	198
Mauritius 16		Saint-Quentin	114
	39	Salford	232
	39		208
",5 €199€П 0	ן טו	Salzburg	_00

# NAMES OF PLACES.

PA	GE !		P	AGE
San Fernando 1		Utrecht		26
Santiago 1	89			
	76	Venezia		124
Southampton 2	232	Venice. See Venezia.		
	76	Verona		124
Stettin 77, 2	08	Vienna. See Wien.		
Stockholm	2	7,70		
	14	Weilburg		210
Stuttgart 77, 2	208	Weimar		79
,		Wetzlar		80
Tharand	79	Wien 86	).	210
	28	Wiesbaden	.,	84
Toronto 1	86	Winterthür		214
Toulouse	19	Wissembourg		115
Triest	:09 L	Würzburg		85
Trondhjem	7			
Tübingen	10	York		169
Turin. See Torino.				
		Zürich 88	ή,	213
Upsala	$-6^{\circ}$	Zwolle 28	١,	196

